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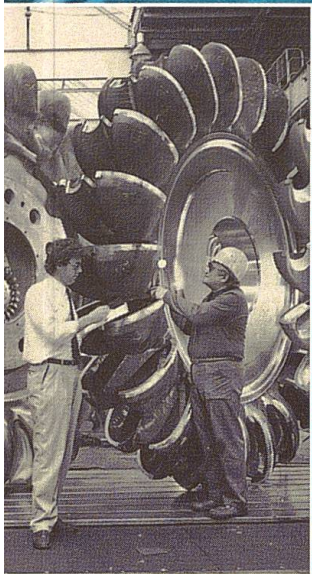
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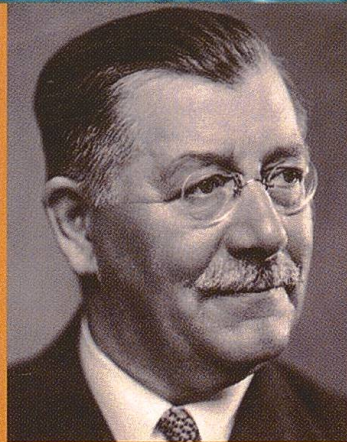
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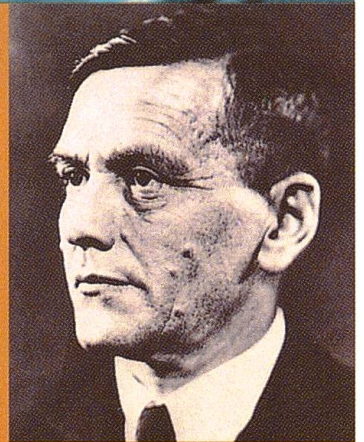
# From Schmidheiny to Schmidheiny



Jacob Schmidheiny 1838–1905



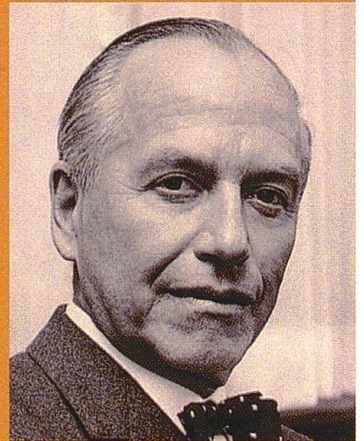
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Jacob Schmidheiny 1875–1955



Ernst Schmidheiny 1902–1985



Max Schmidheiny 1908–1991

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# **From Schmidheiny to Schmidheiny**

by Hans O. Staub, Zurich

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Schmidheiny family tree

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# Preface

Appearing in 1979, «Drei Schmidheiny» (Three Schmidheiny) was the thirty-second book in a series on Swiss pioneers of business and industry published by the «Verein für wirtschaftshistorische Studien» (Association for Historical Research in Economics). Author of numerous historical studies on the Rhine Valley area, the teacher Jakob Boesch from Berneck in the canton of St. Gallen wrote the portrait of the founding father of the Schmidheiny industrial dynasty, Jacob I, a simple weaver who very early in life had set himself one main aim: «I want to be a manufacturer». His sons Ernst I and Jacob II continued his extraordinary and diverse life's work, expanding it and undertaking business ventures beyond Switzerland's borders. Hans Rudolf Schmid (Thalwil), editor of the first edition of the book, and Benedikt Fehr (Zurich), who worked closely with Jakob Schmidheiny II over many years, wrote the biographies of the two sons.

The book (now out of print) was a great success, and there was a definite demand for a revised version of the three profiles incorporating relevant new material. The only one of the three authors still alive, Benedikt Fehr, who wrote the third biography, kindly consented to this undertaking.

The new chronicle of the Schmidheiny industrial dynasty from Heerbrugg was also to continue where its forerunner left off and include a description of the lives and work of the third and fourth generations – Ernst II, Max and Peter Schmidheiny and

their sons Thomas, Stephan, Alexander and Jacob III. Going largely separate ways, they all significantly expanded their particular spheres of operation and helped to shape the fortunes of Swiss industry from the mid-twenties to the present day – a time when industrial evolution is in a constant state of flux thanks above all to the unfailing Schmidheiny dynamism.

The present author received generous assistance from all quarters. In numerous discussions, the protagonists of the Schmidheiny story and their friends, relatives, staff and colleagues imparted their private and professional recollections and experiences as well as their business and political views. For this I should like to express my utmost gratitude – without their help these portraits would not have been complete. This book was finished in the summer of 1994, and any subsequent events have not been considered.

Hans O. Staub



*Jacob Schmidheiny I,  
1838–1905*

# Jacob Schmidheiny I (1838–1905)

«I want to be a manufacturer»

<u>Joh. Engster</u> de Hof's am Berneck / 62	" " "	
<u>Jacob Ritz</u> de Hof von Balgach seit dem Schuljahr 1862 - alt 13 1/2 Jahren und fünf Wochen	" "	mit 25 Jahren gestorben
<u>Schmidheini Jacob</u> v Balgach / 63	" "	mit 25 Jahren gestorben - Dr. Sonderegger
<u>Spätes Robert</u> / 63 /	" "	nach Mungingen
<u>Weder Joh.</u> v Schmiller / 63	" "	in Balgach
<u>Schreiber Ulr</u> v " / 63	" " "	
<u>Weder, Wilh.</u> v Balgach / 63	" "	nach dem Aufst. an Lyoner A. v. v. / 63

An entry for 1863 in the Berneck school register: «Schmidheini Jacob, f. Balgach, 25 years old – silk weaver»

Great was the astonishment of Mr Kuster, the schoolmaster in the Rhine Valley village of Berneck, when he was approached in 1862 by a 24-year-old man with the request to be allowed to join the ranks of boys and girls only half his age on the school benches. The young man was a silk weaver by the name of «Schmidheini Jacob», as Kuster recorded in his register in his copperplate gothic script. The teacher spelled the name with an «i» at the end, as it was customary at the time, and Schmidheini himself continued to use this spelling in letters or on letterhead paper for many years to come. The «i» was not to become a «y» until much later. Though Kuster did not indicate the precise age at which Schmidheini joined his school, he nevertheless appeared to be an excellent schoolmaster, and his pupil, though no longer so young, appeared to be equally talented. After 31 weeks, Jakob Schmidheini had already completed the syllabus for the second class and felt himself to be well on the way to becoming what he had

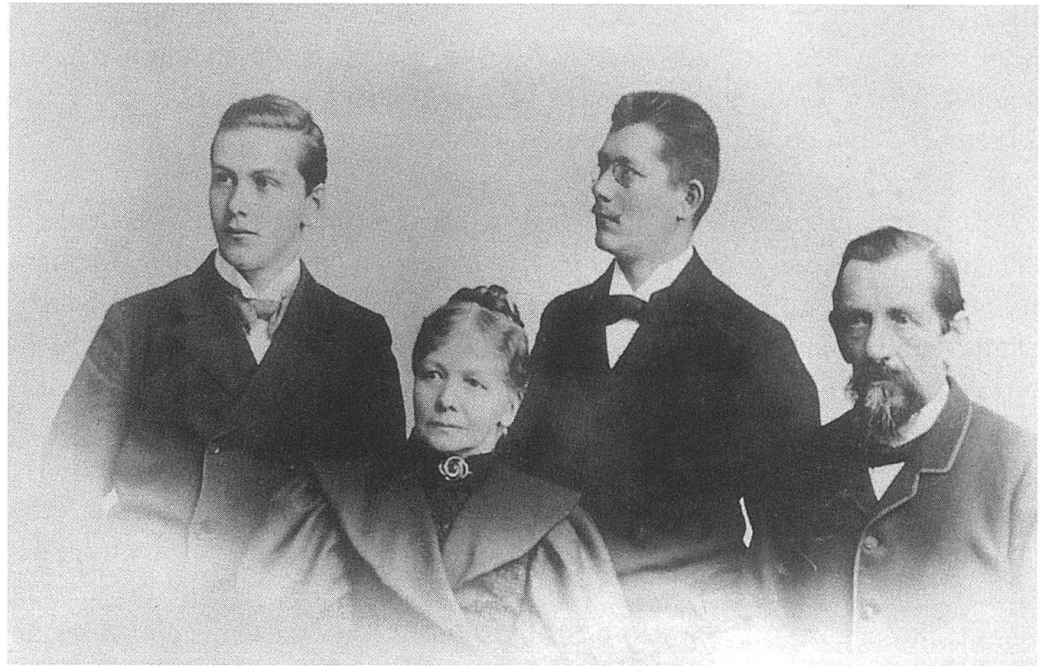
always dreamed of being from his childhood onwards: a manufacturer. «I want to be a manufacturer» had been his ambition from a very early age.

His parents were certainly not in a position to help him realize his dream. His father Hansjakob, who was married to Kathrine Nüesch, was the village tailor of Balgach, and his income was less than modest. His eldest son Jacob was born on 25 June 1838, and was later to write that «from childhood on I have always had to work hard. This helped me harden body and mind, but there was not always much to eat».

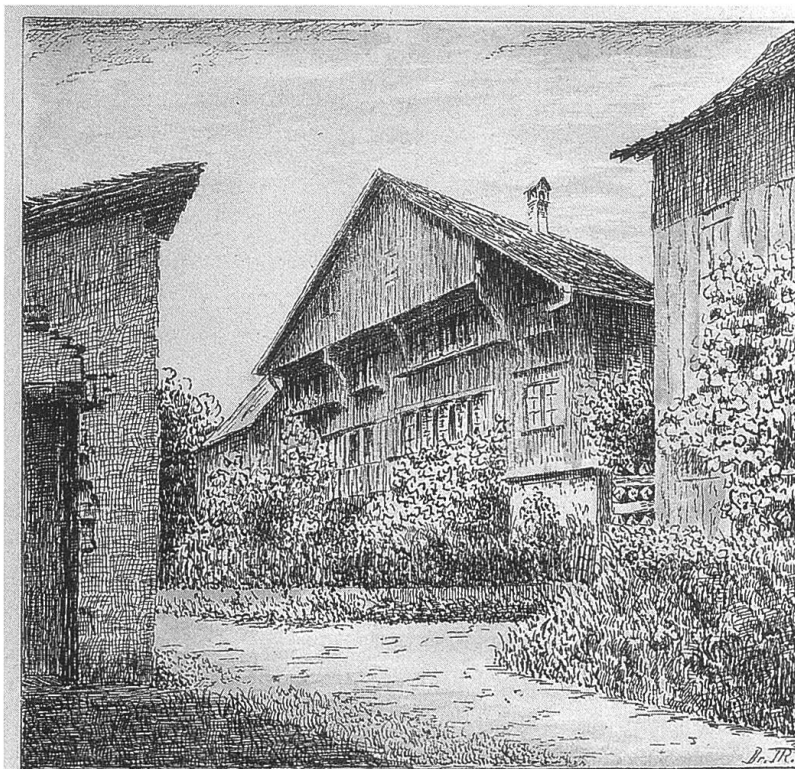
Young Jacob had to «work hard» despite the many afflictions he suffered from. Always a delicate child, he fell ill with smallpox at the age of five, developing a purulent wound on his left foot which left him with an Achilles tendon so damaged that he was only able to walk or stand on the ball of his foot. Although the local Balgach physician, Dr Sonderegger, recommended surgery, the anxious parents were adamant in their refusal.



*The Schmidheiny family in 1896: above, the two sons Jacob and Ernst; between them, their mother Elise, and to the right, Jacob I*



*The house Auf dem Bergli at Balgach, «where Jacob Schmidheiny spent many a happy year». Drawing by Dr Josef Rohner*



*Auf dem „Bergli“  
allwo Jacob Schmidheiny eine Reihe schöner Jahre lebte.*

### Manager at Sorntal

Jacob therefore decided to abandon his Sorntal position and return to school at Berneck. It was the right decision. In January 1864, the new owner of the Sorntal factory offered him the post of manager at the modern-

ized mechanical silk weaving factory. To begin with, he had to work in the office because the new plant was not yet fully operational. But he was given a free hand to realize his ideas. It was no easy task for him to supervise and instruct over a hundred – mostly foreign – women weavers, fourteen silk reelers, several bobbin winders, warpers and unskilled workers. He had to keep a close watch on the equipment, and proved particularly skilful at repairing breakdowns. The many improvements that were introduced testify to his extraordinary technical ingenuity and the talents that were of great advantage in his later life. He also attended countless public lectures held in the neighbouring town of Bischofszell in order to fill the gaps in his education. His delayed schooling acted as a spur to his desire to learn.

But the management of the very extensive plant at Sorntal made great physical demands on Jacob Schmidheiny. He had to be on his feet far longer than was good for his weakened left leg, and he had to make the 20-minute walk from Hauptwil to his place of work at least four times a day. When the pain became unbearable, he

finally agreed to the surgery that had been recommended to him and his parents fifteen years earlier. On 31 December 1864, he left the factory in Sorntal for good, and was admitted to the *Marolanische Krankenhaus* in Altstätten for surgery. The operation was followed by a 15-week course of painful follow-up treatment. Now, however, Jacob Schmidheiny was able to stand on the entire sole of his foot; a slight shortening of the left leg was offset by a specially constructed shoe, and he made regular use of a walking stick.

The owners of the Sorntal plant repeatedly requested him to return to the factory, offering him a much higher salary. He hesitated for a long time, weighing up the pros and cons while wandering through the Grünenstein woods. After a long struggle with himself, and despite the entreaties of his parents and friends, he decided to realize his childhood dream of remaining independent and becoming a «manufacturer». He acquired an empty pottery at Weiersegg, on the country road leading from Balgach to Rebstein, and set up several weaving looms. His Berneck schooling and the long hospital stay in Altstätten had depleted his savings, however. After paying for the new equipment, his capital amounted to all of eighty francs. But his semi-woollen and silk fabrics sold well until the outbreak of war between Prussia and Austria in 1866. Southern Bavaria, Jacob Schmidheiny's best market, suffered greatly as a result from the hostilities, and the young manufacturer had to search for new customers. Though not unsuccessful in this respect, he eventually had to acknowledge that there were limits to what a small-scale operation such as his could achieve and that he would never succeed in keeping his head above water. He

knew exactly what his ailing enterprise needed: more operating capital, more production capacity – and better customer service.

### **Lord of the castle at Heerbrugg**

There was no direct route to achieving these goals, and much foresight and entrepreneurial boldness were required. Chance, however, also played a major role, as it was to do in Jacob Schmidheiny's later career. He learned in the 1860s that the nearby Schloss Heerbrugg was up for sale. The name of this village was derived from *Herr* or «gentleman» rather than from *Heer* or «army». In fact, it was associated with a specific gentleman, the abbot of St. Gallen, Ulrich III. Heavily involved in the investiture dispute between the Holy Roman Emperor and the Pope, Ulrich erected – in 1077, the year of the Emperor's legendary journey of penitence to Canossa – a simple castle high above the Rhine Valley on the military road leading from the lower Rheingau to Graubünden, on the site of a former Roman fortress. This castle, the *Hêrburk*, with its massive four to five-storied tower, was built to protect the abbey of St. Gallen's estates against its surrounding enemies, particularly the Count of Bregenz. However, the castle soon declined to the status of farmhouse. Renovated in the 17th century, it was destroyed by fire in 1774. Though subsequently rebuilt as a real castle, it did not receive its tower until 1911. As a matter of fact, the estate had once been owned by a Schmidheiny, the court and district clerk of Balgach, who sold it to an army officer from Altstätten called Kuster for 16,000 florins in 1792. Kuster was also at a loss as to what to do with the castle and was relieved when he was able to sell it to Professor Karl Völker from Eisenach in Thüringen in 1833.

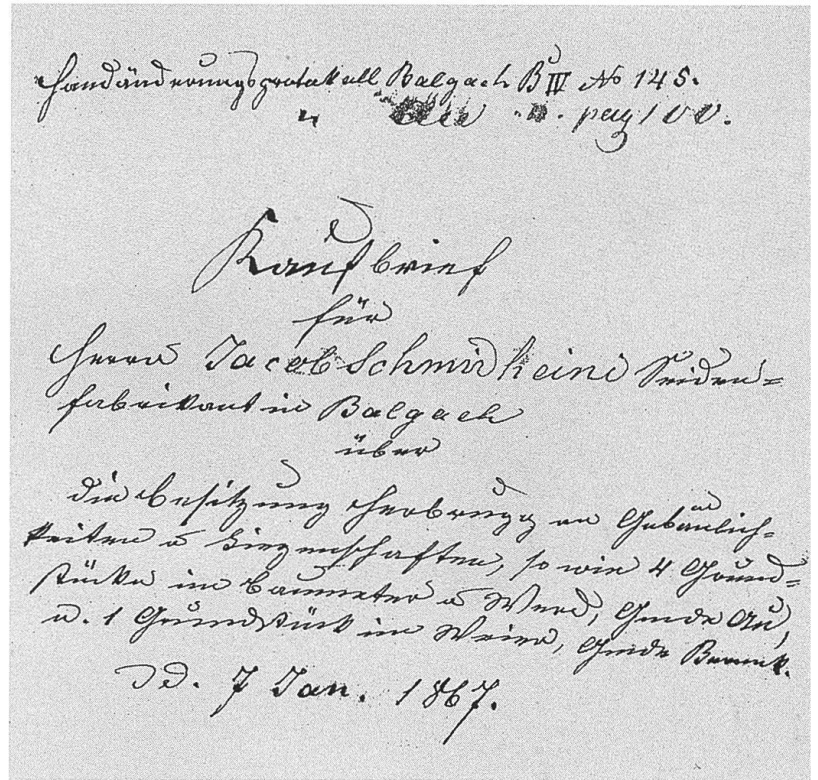
*Schloss Heerbrugg, which was bought by the German immigrant Karl Völker in 1833 and sold to the manufacturer Jacob Schmidheiny in 1867*



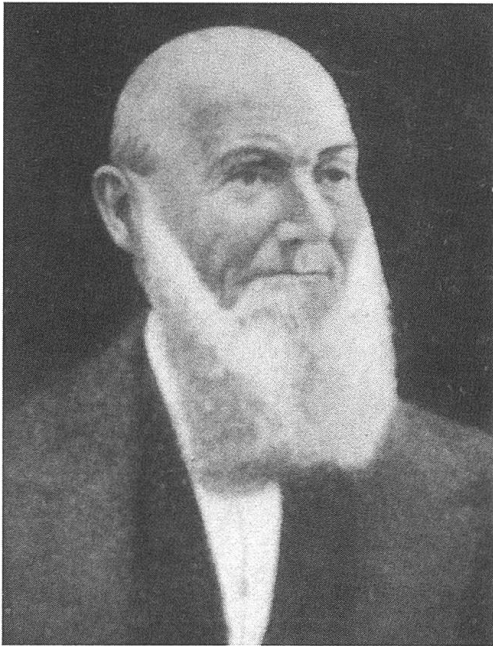


The Hunt Room in  
Schloss Heerbrugg

Völker had fled to Switzerland in 1819 as a political refugee. He married a native of Chur and became a citizen of Altstätten. Having previously been the headmaster of a boys' school in England, he ran a similar institution, also for English schoolboys, in the newly acquired Schloss Heerbrugg



The «Bill of purchase for Mr Jacob Schmidheiny, silk manufacturer in Balgach, for the buildings and lands attached to the property of Heerbrugg», dated 7 January 1867



Professor Karl Völker, 1796–1884, who emigrated to Switzerland as a political refugee in 1819. Became a citizen of Altstätten and was elected to the St. Gallen Cantonal Parliament. Founded a boys' school at Schloss Heerbrugg.

from 1839 on. The school was only a modest success, however, and had to be closed in 1850. Völker then engaged in all sorts of agricultural experiments. He started breeding Merino sheep, but when this came to nothing he turned his attention to silkworms, which were also a failure. He did better with the sale of brick-based products made in the outhouses where he had once kept sheep. His piping was particularly in demand, being used to drain the extensive marshlands of the Rhine Valley. Sales were so brisk that Völker built the brickworks at the foot of the castle hill in 1856.

In 1866 he decided to sell his substantial possessions, which now consisted of a spacious house, outhouses, an overgrown garden, moderately well tended vineyards and a number of valuable properties. Much to Völker's astonishment, one of the potential buyers was the son of Balgach's local tailor, whom he knew. Schmidheiny addressed the white-bearded *Herr Professor*, now in his seventies, as his «most obedient servant», the usual form of address in those days when differences of age and class were still openly acknowledged. There was, in fact, little likelihood of Jacob Schmidheiny's being able to put together Völker's buying price within the 14-day period he had been given to make up his mind. The *Herr Professor* was asking 135,000 francs, with Fr. 10,000 francs as a down-payment and the rest to be paid off in nine yearly instalments.

Chance again intervened. The Schaffhausen merchant, «Egidius P.», happened to be visiting the weaving shop in Weiersegg where he hoped to place his son Guido. Egidius P. and Jacob Schmidheiny had known each other from Sorntal, but the young Rhine Valley manufacturer had too few resources and too little space and

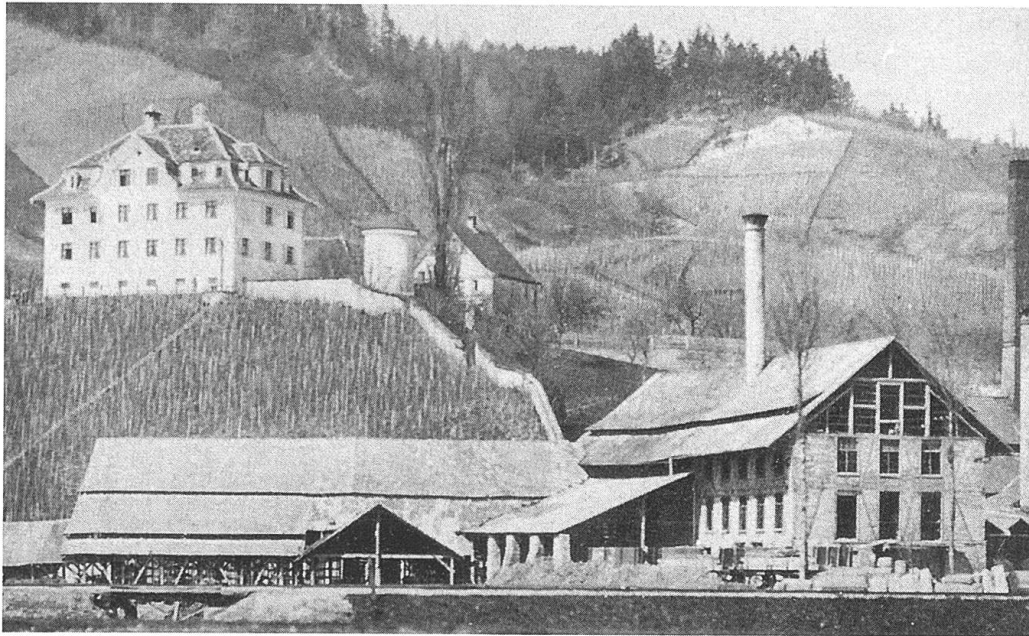
was also not in the proper frame of mind to take on the son of the well-to-do Schaffhausen merchant. However, the latter stated that he would advance the down-payment of 10,000 francs on very favourable terms. On 7 January 1867, Jacob Schmidheiny was handed the deeds of Schloss Heerbrugg.

### **Silkworms and bricks**

The purchase of Schloss Heerbrugg was – both privately and for business – the turning point in Jacob Schmidheiny's life. Nine months later, on 19 September 1867, he married Elise Kaufmann from Toggenburg, who was five and a half years younger than him. She was to bear him two sons, Ernst (1871) and Jacob (1875). He also changed his line of business. Abandoning the weaving shop, he took over (for a short time only) all the mulberry trees scattered over the entire estate and the silkworm breeding business from Professor Völker, who still lived on the first floor of the castle. Some time later, around 1870, Jacob Schmidheiny turned his attention to



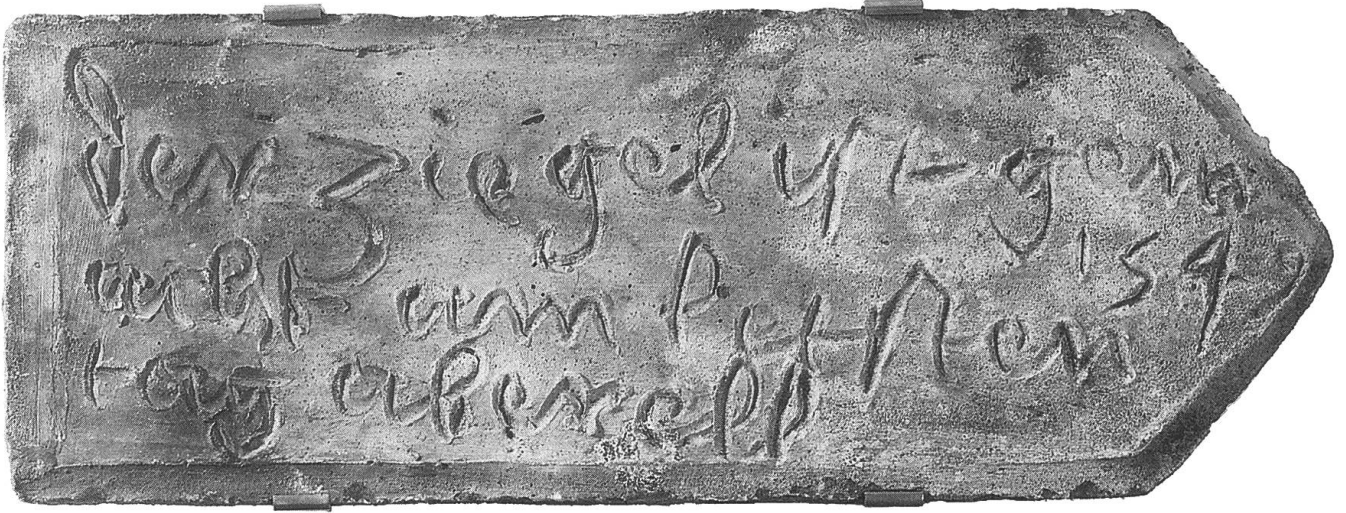
*Elise Schmidheiny, née Kaufmann,  
1843–1927*



Schloss Heerbrugg and, in the foreground, the brickworks built by Völker and expanded by Jacob Schmidheiny, the family's «parent» company. Photo c. 1880.



«The brickmaker – God's service makes free / From Satan's slaveree.» Copperplate engraving by Christoph Weigel, 1698.



«This brick was made on the last day of April 1549.»

Three medallions began to grace the letterhead paper of the Mechanische Ziegeleien J. Schmidheini shortly after 1886.

the small brickworks. What he found, however, was more than «modest»: a small workshop employing several brickmakers who, by manual methods, produced one pipe after the other or, working at the same comfortable pace, tiles and bricks. Once a certain number of pipes had been formed, an old-fashioned kiln was filled with wood and the firing process was laboriously started.

The young manufacturer was not too proud to labour alongside his men, sharing the simple midday meal with them and working in the plant from morning till night. For his entrepreneurial spirit, however, the business was too paternalistic and amateurish and therefore also too unprofitable. Jacob Schmidheiny systematically set about uncovering the secrets of his new line of business, above all studying the difficult question of raw materials procurement. Although the Rhine Valley boasted all types of clay, he had to find out what type produced the best product. Using a small workshop at his factory, Schmidheiny started testing different raw materials, new tools and apparatus as to his heart's content.

Schmidheiny soon had to acknowledge that the business taken over from Völker would have to be modernized and extended. In spring 1871, new buildings with a modern high-rise chimney stack were constructed, and the wood-burning square kiln gave way to a more practical and less energy-consuming round kiln. Not all of those innovations paid off, however, and losses were made. All in all, however, the plant soon became profitable and further expansion was needed.



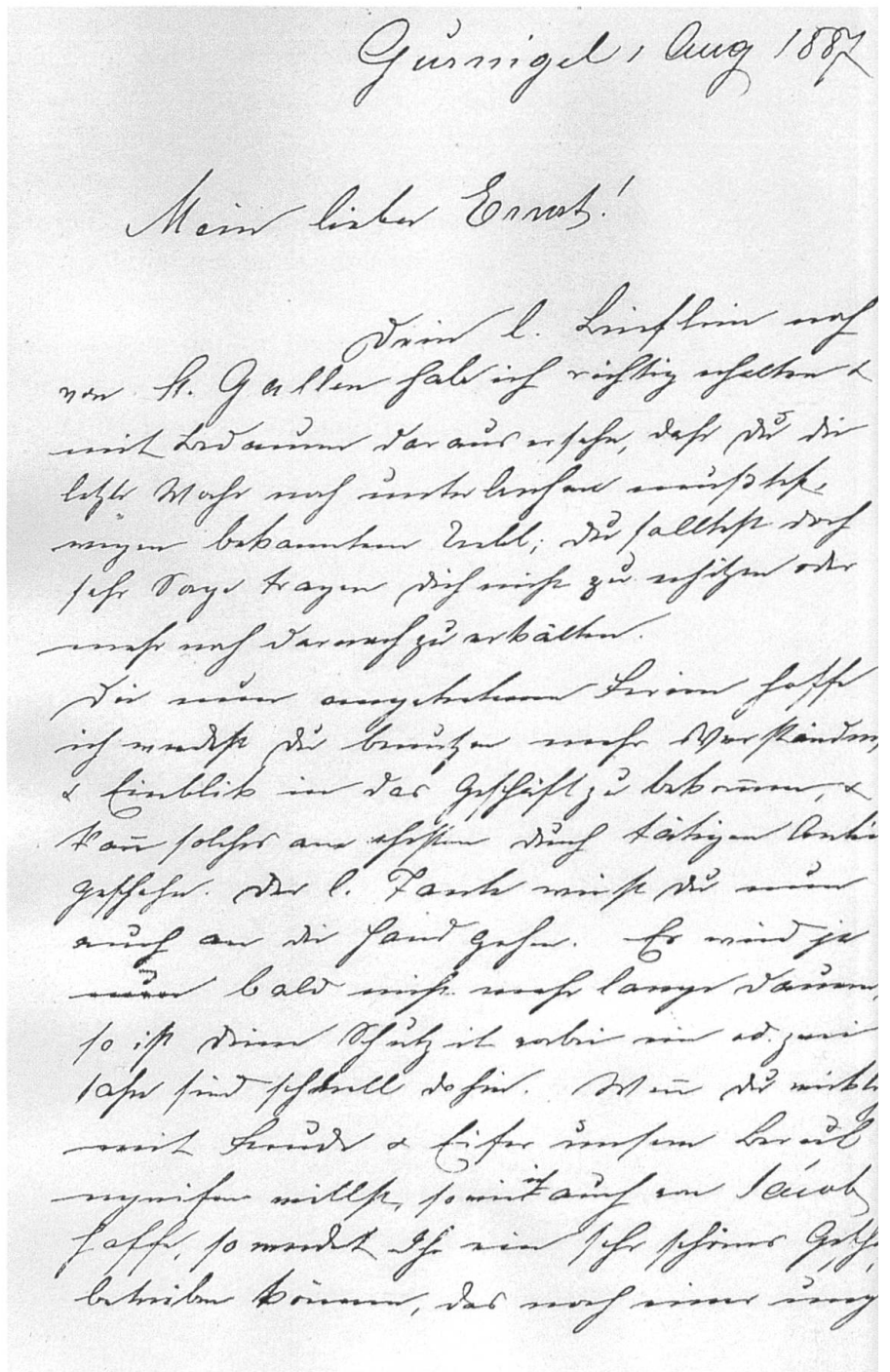
## Expansion to St. Gallen

Throughout his life, Schmidheiny was to show an instinct for discovering new industrial trends. In the early 1870s, he saw that St. Gallen's embroidery industry was booming. What the new offices and factories needed would boost demand for construction materials. Once again, chance came to his aid – though he would still have to deploy all his resources of boldness and imagination. In 1874, the Moser brickwork in Espenmoos, near St. Gallen, was burnt to the ground. Jacob Schmidheiny bought the site, reckoning that a brickwork so close to the city was bound to be a success in the current economic boom.

Even though the young manufacturer invested all his know-how and powers of invention in the new enterprise, *J. Schmidheiny* (or *J. Schmidheini*) *Mech. Ziegeleien* had a difficult start. Its owner had little money at his disposal, yet had to replace the slow manual methods of producing bricks by mechanized procedures as soon as he could. Having to count every penny, he could initially afford to buy only cheap equipment, thereby confirming a mocking claim by the old-established Winterthur industrialist, Sulzer, that «our manufacturers start by buying a steam engine that is old, then one that is too weak, and only at the third attempt one that meets all their needs».

Obtaining the necessary water power at the St. Gallen plant was also a constant problem. «For months», Schmidheiny was later to note, «my presence was required there. I travelled to work every morning with the first train, I was on my feet the whole day, and I returned home in the evening on the last train. Not wonder, my head never stopped spinning» – a reference to the headaches that plagued him for many years.

As if this were not enough, new obstacles were hindering the exploitation of raw material reserves. Schmidheiny had already had similar problems at Heerbrugg. Although the Rhine plain offered almost inexhaustible supplies of good clay, one day a large number of local farmers blocked deliveries to Heerbrugg with the foolish pretext that mined holes and the pools of water they caused were responsible for the bad grape harvests. Schmidheiny therefore quietly began to look around for new sources of raw



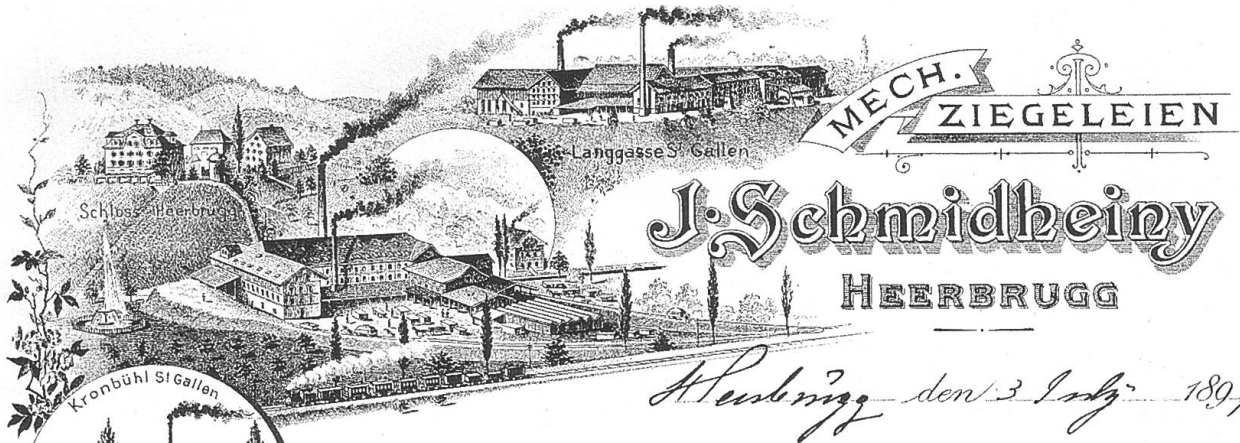
material. He purchased a large amount of clay in Marbach, though the material obtained in that region had a high content of chalky components. As such, it was unsuitable for producing bricks, and had first to be washed out. Only then did it become first-class raw material.

The procurement of raw material also proved to be a problem in Espenmoos. Though the blue clay obtained there looked very attractive, it did not have the necessary hardness or the right tone to it. As a result, it had to be

mixed with a different type obtained from the not too distant southern clay slopes of «Peter und Paul» hill. Overcoming the problem of distance was neither simple nor cheap. Schmidheiny's solution was to build a small funicular railway. He agreed to pay a transit fee for a period of ten years to local landowners for the right to run his train across their land. But in the 1880s, the farmers, believing they had Schmidheiny at their mercy, ganged up and demanded a tenfold increase in the fee. They had not reckoned with

Guter zu kämpfen auch gegen die  
 Völlerei nicht die auf mich nicht mir die Kraft an  
 schenken, aber es giebt doch die einfachste Arbeit & die  
 richtigste. Nicht gering zu sein, das ist, was man sich  
 in das Leben der selben hineinsetzen will. Es ist  
 dann, was so gut wie billig ist, das es nicht  
 auf ein bißchen mehr sein.  
 Gott für das, was ich in meinem Bestreben  
 auf die Welt zu bringen. Das Gottes Wort ist aber auf  
 seine Art geblieben.  
 Ich habe mich die Zeit nicht zu sehr zu verbringen  
 sondern mich für die Zeit zu verwenden, die mich nicht  
 so sehr, sondern auf meine eigene Art.  
 Wohlwollen, was ich auf diese Weise nicht  
 kann ist.  
 Mein Papier geht zu Ende, das ich nicht  
 diese Linien, die ich nicht auf diese Weise nicht.  
 Liebe Leute! Was ich nicht diesen Gott zu sein  
 möchte zu sein: wir können nicht finden  
 was man sich nicht finden kann. Es ist  
 das ist ein sehr schönes Beispiel  
 was man nicht bis zu Ende gehen  
 in ihm.  
 Herzlichst mein  
 Grüßen & die Liebe  
 Dein Vater  
 Jac. Schmidheiny

In a letter to 16-year-old Ernst in August 1887, Jacob Schmidheiny expressed his wish that his two sons would one day follow in his footsteps and become manufacturers: «If you take up our line of business with true enthusiasm and dedication, as I also hope Jacob will, you will do very well indeed, for the untapped potential is vast.»



Heerbrugg den 3 July 1897

Mein lieber Ernst!

Dieser liebe Brief  
 dankt dir in der herzlichsten Weise für die  
 Anl. Gott sey dir in deiner Arbeit segnend. Am  
 Gottes Segen ist alles gelegen! Hoffe dir noch viel  
 zu schreiben zu können.



It was customary at the end of the 19th century for industrialists to have drawings of their factories on their letterhead paper, along with any awards received. «God's blessing is all», as Jacob Schmidheiny wrote to his elder son Ernst on 3 July 1897.

Espermoos - Bilanz 1895  
 u. Schlussrechnung

		Soll	Haben
2	In den Kauf von Kisten - Conto	2116.20	23952.27
14	Dramen von Seiten des		7281.49
26	Steuern von Conto		1662.35
32	Gehälter Conto		14128.49
58	In den Kauf von Conto	75420.55	6595.90
90	Lieferanten Conto	2046.	3592.60
100	Umsatz von Conto		2500.-
104	Heerbrugg		5330.37
	Umsatz 1895	3942.05	
	" 1894		6068.
		83825.80	71011.37
	Nein - Gewinn		12814.43
		83825.80	83825.80

A balance sheet of the Espermoos brickworks dated 1895

the entrepreneurial determination of their opponent, however. Schmidheiny decided to build new brickworks at the bottom of «Peter und Paul» hill and thereby avoid crossing any land owned by someone else. It was here that the Bruggwald plant was built in 1903.

**«As if the world were full of demons»**

But these were not Schmidheiny's only problems. The Espenmoos operation had got off to a good start. The quality and punctual delivery of the goods were guaranteed by the tireless inspections undertaken by the owner himself, and this attracted large numbers of customers. But in the early 1880s, Schmidheiny began to feel as if «the world were full of demons». Technical problems hindered production, and the water supply proved inadequate not only at Espenmoos but also at Heerbrugg; severe night frost froze the residual water in the bricks and burst the material laid out to dry. In autumn 1882, fire – fanned by the Foehn – destroyed the entire central building of the Heerbrugg plant. But Schmidheiny did not give up. He quickly put together the money necessary for rebuilding, and full production was resumed in spring 1883.

In the 1880s, however, the industry was affected by a serious economic crisis which made itself felt beyond the frontiers of Switzerland. Prices fell, and many competitors tried to sell their products at dumping prices. Schmidheiny, whom reconstruction of the Heerbrugg factory had left heavily in debt, was forced to increase productivity and lower production costs. He recognized in particular that such costs could be lowered by employing greater water power which would streamline his operations and increase their cost effectiveness. He looked for new sources of water and found them

particularly on the eastern slopes of upper Appenzell. In the «Klee» district, he acquired a number of springs whose waters he redirected in pipes to a reservoir built on the Balgacherholz and thence to the Heerbrugg brickworks located 380 meters further down.

In the company of other specialists, Schmidheiny travelled to Westphalia to study developments in the industry there. They encountered a form of production that, though entirely new to them, appeared to be considerably more profitable, involving compression of semi-moist clay and its direct exposure to the heat of the kiln. Schmidheiny was impressed by this streamlined process and had a wagonload of Bruggwald clay transported to Westphalia and processed there. The result was so encouraging that all production at Bruggwald was switched over to the new method.

But in boosting the productivity of his brickworks, Jacob Schmidheiny did not confine himself to introducing methods developed elsewhere. He himself was a passionate technical experimenter. After many attempts, he succeeded in 1880 in producing a special long-stringed gutter tile about which he enthusiastically wrote: «It simply flows out of the machine, ready to use. You only need to cut the length and it does not have to be compressed or improved in any way. You cannot say that about any other tile currently being manufactured. The machine can easily supply 600–800 tiles in an hour. Thanks to its construction, the tile provides the lightest roof with the longest life.»

Like many inventors, admittedly, Schmidheiny tended to overlook the material aspects of his creations in his enthusiasm. For instance, he simply forgot to obtain a patent for the machine that produced his long-stringed

gutter tile. A resourceful foreman made up for this omission and had the invention patented – at least in Switzerland – under his own name. For some reason, Schmidheiny was reluctant to go to the courts for what he considered a bagatelle. He obtained the sample protection rights in Germany and the Austro-Hungarian patent, and left it at that.

In 1891, Jacob Schmidheiny succeeded in producing two bricks in one working step. «We shall soon be able to produce twice as many bricks, and it will only cost us the price of an additional apprentice», he noted with triumph. This time, however, he applied to the patents office for protection of his invention.

#### «The multiple-edge mill»

Schmidheiny's greatest problems arose in connection with the urgently needed modernization of his St. Gallen factory. He had acquired new – and apparently state of the art – machinery in England. But the bricks they produced all had large numbers of hair-line cracks and were too heavy. Schmidheiny tried to rectify this by using other equipment such as centrifugal mills. Though the results were satisfactory, the mills were expensive and wore out too quickly, having to be discarded after the production of only ten to twelve million bricks.

Though discouraged for a while, Schmidheiny did not give up. Encouraged by his wife, he started experimenting again. After many failures, he eventually produced his greatest inventive achievement, which was to earn him widespread acclaim in the industry: the «multiple-edge mill». Constructed according to his own designs, this machine «combined the individual manufacturing steps», allowing uniform kneading of the clay and marl required for producing bricks. The

machine proved to be astonishingly efficient and economical, using four times less energy than the earlier rolling mill and yet was much more productive. In addition, it ran virtually without breakdowns, and there was no waste. After some details had been improved, the popularity of the invention spread throughout Europe from 1900 on. According to the trade newspaper of the Berlin clay industry, the multiple-edge mill represented «an important step forward for our brickworks with their quite different raw material». Having learned the hard way, Schmidheiny was now experienced enough to apply for a patent for his invention. Subsequently, the *Giessereien und Maschinenfabrik Adolf Bühler in Uzwil* bought «all purchasable patents», thereby securing «the sole rights to produce and sell the wet multiple-edge mill».

In the meantime, however, fate was planning some serious setbacks for Jacob Schmidheiny. At the start of 1891, a devastating fire broke out in the Heerbrugg brickworks, destroying most of the facilities. The conflagration probably originated in the recently renovated heating plant, and the heating engineer Fehr from Widnau lost his life.

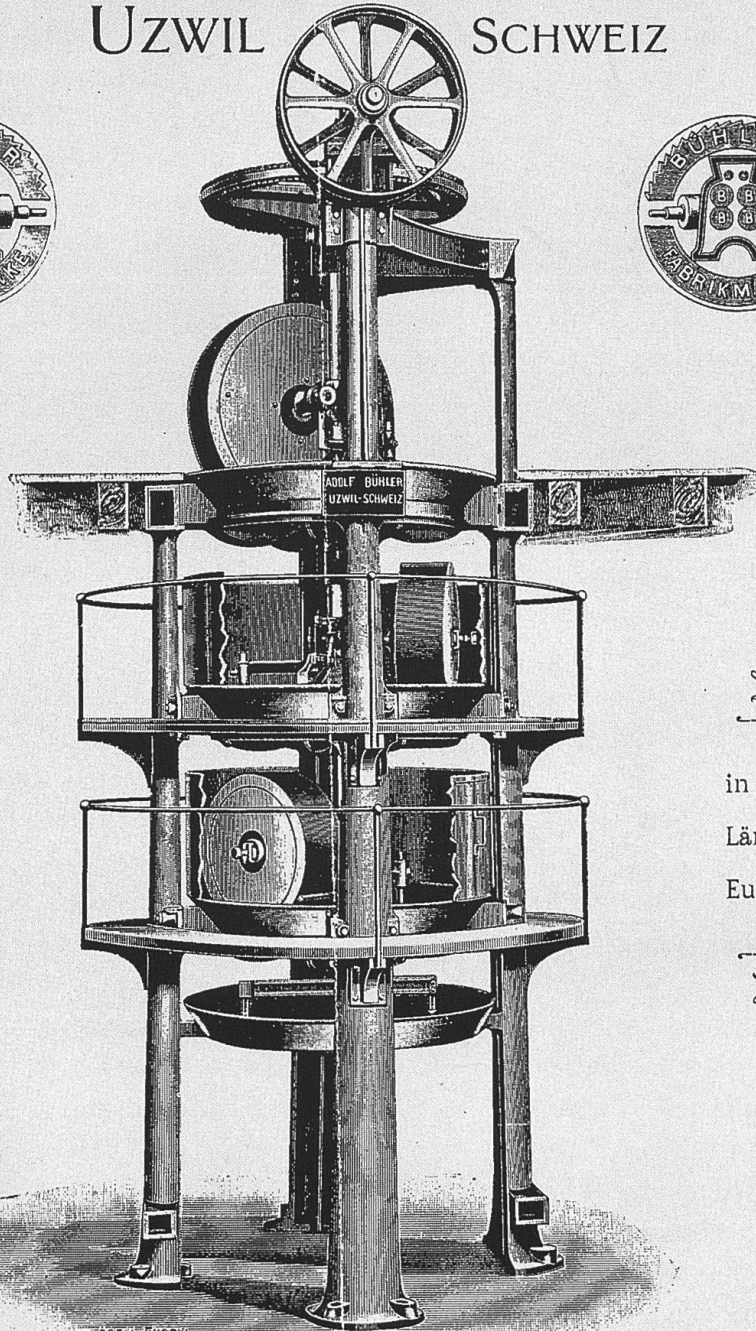
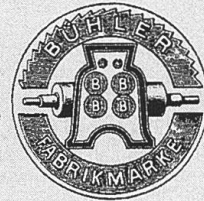
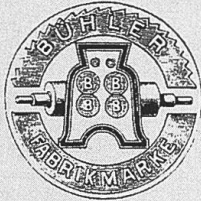
The fire had a positive side to it, however. Planning the reconstruction of the plant revived the spirits of the depressed manufacturer for a while. But it also caused him new financial problems which he was to have great difficulty in overcoming in the next few years. In a letter of 1892 he wrote: «I have had to struggle with debts my life long. Wages have to be paid, bills for interest and taxes have to be settled whether I possess the money for them or not. I long to be free from these financial burdens. If the town buys the property I have offered it, I want to use the cash to make sure I avoid in future

*The Giessereien und Maschinenfabrik Adolf Bühler in Uzwil acquired the patent for the «multiple-edge mill» invented by Jacob Schmidheiny. This mill ensured uniform kneading of both the clay and marl required for producing roofing tiles and bricks. The apparatus soon became a byword in trade circles.*

# ADOLF BÜHLER

GIESSEREIEN UND MASCHINENFABRIK

UZWIL SCHWEIZ



Eigene  
Patente

in allen  
Ländern  
Europas.

Spezial-Maschinen für Ziegeleien und Cementfabriken.

the dreadful financial worries that have almost cost me my life this last year.» Schmidheiny had great difficulty in meeting his commitment to pay off the capital as well as the regular interest, and there was no question of setting aside the provisions that were actually necessary. In his despair he wrote: «I have to jump from one branch to another and I never know whether the tree will not have been cut down from underneath overnight and cause me to tumble to my ruin.»

But Jacob Schmidheiny's financial backers always had full confidence in the simple man from Balgach – and he never let them down. His financial situation improved somewhat as the multiple-edge mill began to make a profit. Schmidheiny's protracted and worrying financial plight gradually took a turn for the better. On deciding to build a new factory in Kronbühl near St. Gallen around the turn of the century, he reported proudly that his factories had produced about 25 million bricks in 1900, compared with some 250,000 in 1870 – a hundredfold increase.

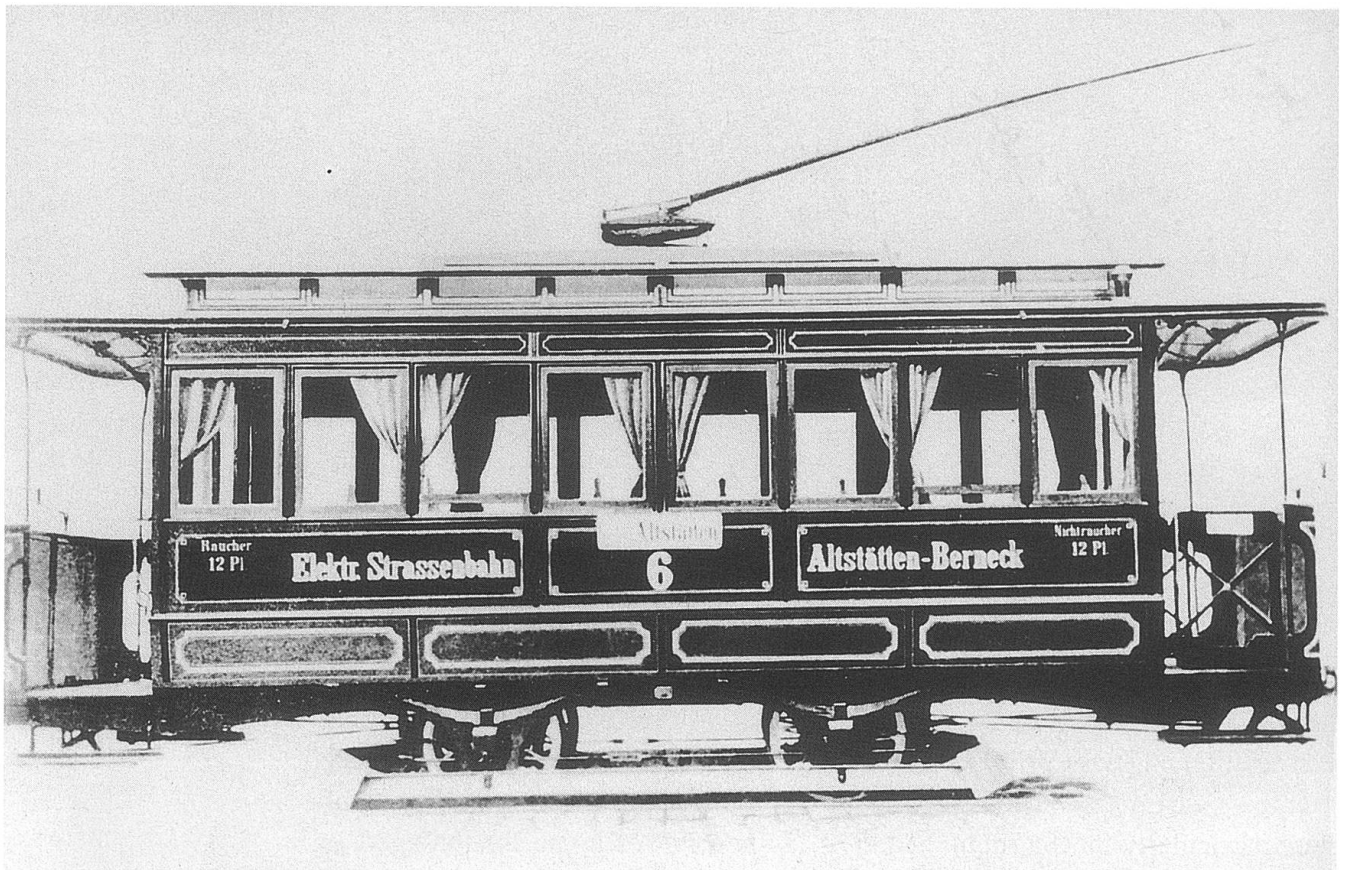
### **Opening of the Rhine Valley tramway**

Despite the many setbacks suffered by Jacob Schmidheiny in all those years, he remained dedicated to what is now called «holistic thinking» – an approach that was to characterize subsequent Schmidheiny generations. He was concerned about the well-being not only of his own brickworks but also of the wider surroundings, above all the Rhine Valley, where he constantly tried to create new employment opportunities and the most favourable possible operating environment. He was particularly concerned about the poor transport infrastructure. The existing tramline had been laid out along an uninhabited plain well away

from the villages. Together with the Berneck merchant C.A. Lutz, he started planning a Rhine Valley tramway in 1890. With a healthy portion of realism, they confined themselves initially to the Altstätten-Heerbrugg-Berneck segment. Having little time for the old-fashioned «horse-drawn tram» type of locomotion, Schmidheiny did everything in his power to persuade the organizing committee to accept an electrical operating system and, logically, the creation of the necessary water power and issue of shares.

The realization of this project was not always plain sailing, however. Shortly after the line opened in 1897, he admitted that «the building of the tramway has caused me more pain than pleasure, but I have never regretted the great efforts I put into realizing such a useful project». At the urging of his colleagues, he joined the board of the tramway company *Strassenbahn Altstätten-Berneck* – a board which, as he had to admit, was «a true reflection of the shareholders, i.e. a concentration of pure contradictions». In 1903, he became chairman of the unpopular board of directors and had to settle many internal disputes, always with a view to «developing the tramway into an efficient means of transport that can serve the public at little cost».

Jacob Schmidheiny was very attached to his tramline – he was to be fascinated by electricity and the electrical industry his life long (an interest his sons and grandsons were to inherit from him). A year before his death, in a lengthy letter written to his oldest son Ernst from Flims, he expressed ideas that reflected not only the industrial optimism of that period of expansion but also the kind of realistic and politically minded entrepreneur that he was: «Replenish the earth and subdue it. I can't forget this biblical in-



*In 1890, Jacob Schmidheiny devised a project for a Rhine Valley tram linking Altstätten, Berneck, Au, St. Margrethen, Rheineck, Thal and Rorschach, which was, however, rejected by the St. Gallen government. Nevertheless, the Elektr. Strassenbahn Altstätten-Berneck was inaugurated on 6 April 1897. Its initiator, Jacob Schmidheiny, became chairman of the board of directors in 1903, a post he held until his death in 1905. He was succeeded by his son Jacob Schmidheiny II.*

struction, even in the holidays. The hand on my life's clock is certainly well advanced, but I must put my thoughts down on paper: the observation of the streams flowing freely from the glaciers – this treasure chest of immeasurable water power – must make the water engineer's heart dance with joy when he thinks of the vast quantity of water power that has still to be created. But we must not forget one thing: the rural municipalities are still quite amenable to selling their water power cheaply. But one day the farmers will recognize the enormous value of their water. Then all the preaching in the world won't help.»

**«The honest attempt to do good...»**

His work on the tramway was not the only extra string to Jacob Schmidheiny's bow. He stood for public office on many occasions throughout his life. He was a member of the municipal, school and church councils of Balgach

and of the evangelical synod, and from 1891 to his death in 1905 was a member of St. Gallen's cantonal parliament. His reputation was not that of a frequent speaker, but of someone who knew how to listen, but could still – when he was feeling his oats – be quite obstinate. At a meeting of the school cooperative council of his native village, he strongly advocated raising the salaries of the teachers. But the proposal met with opposition, the majority of his fellow citizens preferring to leave things as they were. However, Schmidheiny spoke again: it was, he said, their duty to improve the salaries of the teachers by a modest increase; he would, if necessary, pay this out of his own pocket.

Jacob Schmidheiny was greatly respected in the industry, above all for his wide-ranging knowledge, his impeccable business conduct, his pronounced sense of right and wrong and the simplicity of his manners. From 1903 to his death, he was president of

*Three generations of Schmidheiny in December 1903: grandfather Jacob I, son Ernst I and grandson Ernst II*



the *Verband schweizerischer Ziegler* (Association of Swiss Brick Manufacturers) – no easy task. The board, and more particularly its chairman, had to deal with the problem of excessively large stocks, stagnating sales and strong pressure on prices. Production and consumption had to be coordinated throughout the cartel. Though Schmidheiny tried with all his power to bring about a thorough reform of operating conditions, he was not entirely successful. While to some extent resigned to this partial failure, he consoled himself with the thought that «Often, the honest attempt to do good is in itself enough to satisfy the needs of the times.»

Towards the end of his life, Jacob Schmidheiny was increasingly taken up with the «social question», an issue that became more and more topical in Switzerland as in other countries around the turn of the century with the formation of the trade unions and the passionate debate that arose on the position of the worker. In his own factories, Schmidheiny was always willing to engage in a dialogue, and his door was open for office employees and workers alike. In addition, he was in constant pursuit of a «great

social work», particularly in his last years. He was for ever devising plans for the creation of a central Rhine Valley hospital or home for the aged, or for financing an institution of higher education. But his sudden death due to heart failure at his Espenmoos factory in the early hours of 18 February 1905 put an end to these plans. He was buried in the cemetery of Balgach three days later. He had always said that he wanted to depart from this life in the midst of his work – «like a soldier at his cannon». He had his wish.

#### **«The honour of our house»**

When Jacob Schmidheiny died, his son Ernst was 34 and Jacob II was 30. The father had taken a keen interest in his boys' education. As he once wrote, «Schooldays just fly, there's no saying how, and what they teach us stays with us throughout our lives. Habits learned in our youth are retained thereafter, whether we like it or not.» He was always in close touch with his sons, writing them long letters when they were abroad. And he never forgot to express his deep-rooted piety: he warned Ernst in 1887 not to «forget to pay your respects to your God and

Blatt

Bilanz

der Erbsmasse von J. Schmidheiny sel.

Aktiva.

Gießfabrik an Franz Jacob Lh. Herbrugg.	frs 350 000. -
Zingelfabrik Kraubühl I. J. Jumentar	300 000. -
" " " II. "	300 000. -
Lager an fertiger Waare 1,5 Mill. (frs 60000 Ankaufspreis)	30 000. -
Ausw. f. Gut, Kupfergrube, Analtrofabriken & Runkelst. d. f. Gut	100 000. -
Haus & Fabrik Krummstalt (Ankauf frs 60000)	50 000. -
Gärt. in Espenmoos im Kofbau fertig	10 000. -
Boden im Espenmoos 30000 m <sup>2</sup> à 3	90 000. -
Wohnhäuser & Gärten zur Maarmorfägers Gut.	30 000. -
Boden an der Spinnatstraße (die Hälfte d. Ankaufs) für frs 80000	120 000. -
Wasserkraftanlage Oberobel & Espenmoos samt Gut, Gärten & große Wasserröhrenanlage (Jahresertrag mit frs 30000.-)	250 000. -
Werkstätten von Bergwerksfr. B.	429 500. -
Banken Couls corr.	17 594. 25
Lebensversicherungen fällige	ca. 150 000. -
	<hr/>
	1 927 094. 25
ab Passiven	427 094. 25
	<hr/>
Summen	1 500 000. -

An «Enumeration of the estate of J. Schmidheiny by himself» dated 28 February 1905

Saviour every day», and on 3 July 1887, he wrote, also to his elder son, «May God bless your work. God's blessing is all».

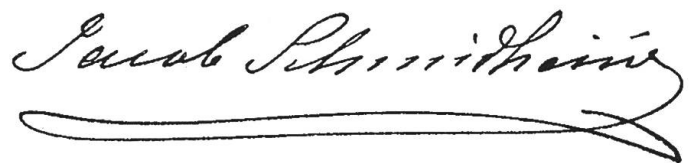
Jacob had hoped that his two sons would follow in his footsteps. He therefore did not conceal his disappointment when Ernst, after passing his high school leaving examination, decided to study law and Jacob junior started making arrangements to leave the brickmaking business. He made a passionate plea to them in the following letter: «My untiring endeavours to put our family on a solid footing (also financially) has been driven more than anything else by my thoughts of you, my beloved sons. It pains me deeply to realize that, having believed the time had come when I would no longer have to struggle with the daily burdens of business on my own, I may again have to fall back on

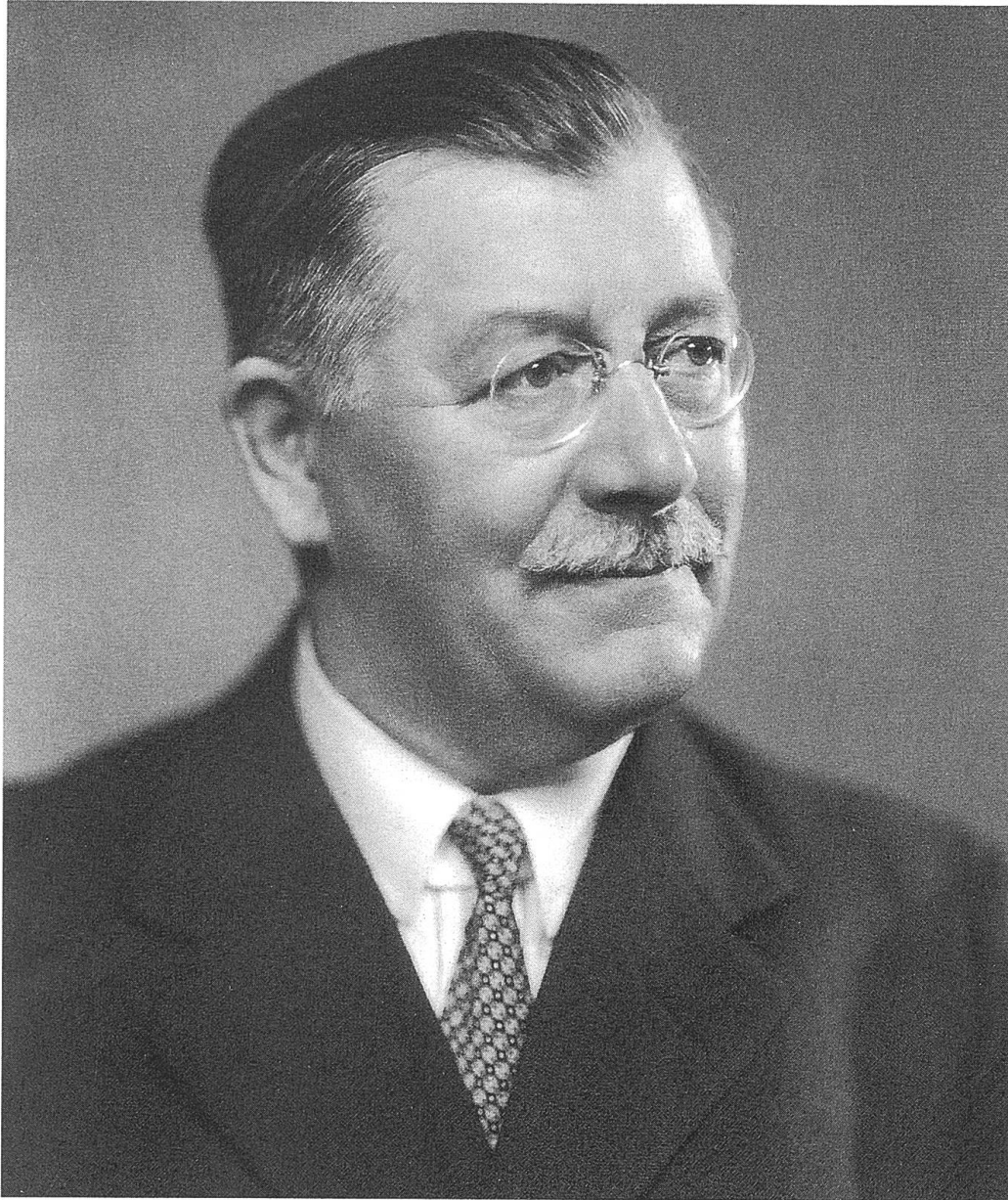
my own resources for years to come, until my strength is perhaps entirely depleted. I have not worked in order to achieve a degree of prosperity, but to establish for our family a solid foundation. Only hard work can keep Heerbrugg – which I fought to acquire and treasure like a beloved bride – in our family. I spare no effort for the honour of our house.»

This plea did not go unheard. In 1902, both brothers became partners in the father's brickmaking business. And after 18 February 1905, Ernst and Jacob II informed their far-flung customers that, following their father's wish, «the company of *Jacob Schmidheiny und Söhne* will be known henceforth as *Jacob Schmidheiny's Söhne* and will be conducted as before, in our father's spirit and intention. We can think of no better way of honouring the company's founder».

## Chronology

- 1838** 25 June: birth of Jacob Schmidheiny, son of Hansjakob Schmidheiny and Kathrine Schmidheiny, née Nüesch, in Balgach
- 1839** Professor Karl Völker from Eisenach takes possession of Schloss Heerbrugg (which he had bought in 1833)
- 1865** Jacob Schmidheiny sets up his own weaving shop at Weiersegg
- 1867** 2 January: Jacob Schmidheiny buys Schloss Heerbrugg
- 1870** Production switched over to the manufacture of bricks
- 1871** 1 April: birth of elder son, Ernst I
- 1874** Construction of brickworks at Espenmoos, near St. Gallen
- 1875** 21 June: birth of younger son, Jacob II
- 1876** Mechanization of brick production
- 1882 and 1891** Heerbrugg brickworks destroyed by fire
- 1888** Construction of brickworks at Kronbühl, near St. Gallen
- 1890** Jacob Schmidheiny, together with C.A. Lutz of Berneck, initiates the *Strassenbahn Altstätten-Berneck*
- 1891** Elected to St. Gallen Cantonal Parliament
- 1897** Inauguration of the tramway company *Strassenbahn Altstätten-Berneck* (Jacob Schmidheiny I appointed chairman of the board of directors in 1903)
- 1900** Purchase of the Horn brickworks – Jacob Schmidheiny's invention, the multiple-edge mill, takes Europe by storm
- 1902** Jacob Schmidheiny junior returns to Heerbrugg from abroad and, along with his brother Ernst, becomes a partner in the new firm *Jacob Schmidheiny und Söhne*
- 1903** Construction of Bruggwald brickworks
- 1905** 18 February: death of Jacob Schmidheiny I – the firm *Jacob Schmidheiny und Söhne* is renamed *Jacob Schmidheiny's Söhne*

A handwritten signature in black ink, reading "Jacob Schmidheiny". The signature is written in a cursive style with a long, sweeping underline that extends to the right and loops back under the end of the name.



*Ernst Schmidheiny I,  
1871–1935*

# Ernst Schmidheiny I (1871–1935)

## Mediator, negotiator and industrialist

He «mediated», said Ernst Schmidheiny senior on several occasions in his life, when asked about the underlying secret of his career. In «mediating», he proved one of his outstanding talents: to listen to contrary views, make the rough smooth, bring quarrelling parties together, eradicate errors, discover common ground. In this he showed his prowess both in his negotiating missions for Switzerland during the First World War and in his wide-ranging activities on behalf of the industries he worked in. Ernst Schmidheiny did not concern himself with just one branch of industry, but with several at once; he knew full well that a modern entrepreneur had to direct his attention to the whole, to the community – of his professional colleagues, of nations, of his fellow-citizens in general – to be truly successful. He always had several irons in the fire, and always knew what was going on everywhere. He was, as a contemporary member of the Federal Council put it, «one of our country's most remarkably well organized industrial brains».

It is true that Ernst Schmidheiny almost always took care never to set up a company or a business on his own – a characteristic he would pass on to his descendants. He loved to share the responsibility, initially with his brother and later with other colleagues. However, he always acted with the willingness to take risks that was typical of him, and had the necessary courage to engage in new initiatives (which occasionally entangled him in ventures which were too risky, especially

late in his life). His dedication and his knowledge of every detail of a firm and its staff won him respect from many quarters. Those employed by him worked not for an anonymous corporation but for «Mr Schmidheiny».

He had inherited his leaning towards the business world from his father Jacob. He was born on 1 April 1871 at Schloss Heerbrugg; his education at the cantonal school in St. Gallen was followed to begin with by a few years of apprenticeship and travel. In November 1893 he joined a Swiss firm of cheese wholesalers in Turin as a trainee. Even then he was friendly with the Kuster family from Altstätten, who lived there and who he described in a letter to his parents as «extremely nice people». With good reason: In the spring of 1894 Ernst Schmidheiny returned from Italy, only to set off for Turin again at the end of the year, this time as a trainee with the Kuster banking house. This was due not only to career considerations but also to personal feelings. Even before returning to Switzerland, he wrote to his parents: «...c'est dur pour moi de quitter l'endroit où j'ai trouvé mon bonheur.» His «happiness» was called Vera Kuster, the daughter of his principal Anton Kuster-Schläpfer; he became engaged to her at the beginning of 1896 and married her in October of the same year. The marriage produced two daughters, Vera Lydia («Verina», born in 1897) and Marie Luise («Lilly», 1900), and two sons, Ernst (1902) and Max (1908). Ernst later built a spacious house, named the «Villa», adjacent to Schloss Heer-

brugg for himself and his family, where his son Max was later to live and have his office in the final years of his working life.

**Lieutenant, «phantom fireman»  
and member of parliament**

Prior to his marriage, some weighty decisions had been taken for Ernst Schmidheiny senior. In the middle of January 1895 he interrupted a stay in England after six weeks to return to Heerbrugg on account of his father Jacob's poor health and to take on some of the business burdens that were threatening to crush him. Ernst would really have liked to study jurisprudence, but his father stopped him. In the same way that he implored his two sons to preserve Schloss Heerbrugg, he now turned to Ernst in a letter which betrays little respect for lawyers and their profession: «My dear Ernst, one cannot serve two masters. The profession of a lawyer and that of an industrialist are quite different. We conduct our affairs in peace, and this has given me much satisfaction. What is more, the financial existence of a doctor of law is in nine out of ten instances a miserable one – considering what the title costs. (...) Oh, my dear Ernst, do not abandon your ageing father now! It is one of my sweetest memories that I have been obedient to my blessed parents, and I hope that you will have the same experience one day.»

This heartfelt plea prompted a response. At the end of 1895 Ernst sent a letter to his parents in which he first expressed the deep piety which he had inherited from his father Jacob: «When I look back on the past year, I feel a strong obligation to express my warmest thanks, first to God, the creator of all that is truly good, and to you, dear parents, to whom I owe so much and can never repay.» Then followed



*Vera Schmidheiny-Kuster 1877–1964*



*Ernst Schmidheiny at the age of 29 in September 1900*

the confession to his father: «...and only believe, even though I cannot put my thoughts into words, that I none the less feel the purpose and the motive of all your work, and it is my greatest desire to follow in your footsteps in this respect.» This meant devoting himself fully to the enterprises which Jacob had built up. It was also true to

*Captain Ernst and First  
Lieutenant Jacob  
Schmidheiny in 1903*



the ambition which Ernst Schmidheiny had shown since his youth and had left him clearly frustrated during his first period of military service.

In 1891 he had attended the school for field artillery recruits in Frauenfeld and in the same year had been promoted to lieutenant. As a young officer, he wrote in 1904 from a refresher course: «Today I have completed half my period of service, thank goodness. I really wish I were already

home, for I find my duties very boring, since I do not have the position I want, because I am the youngest and have to do everything the others don't like doing. So I am a real stopgap.» Ernst received from his father a reply which was typical of Jacob Schmidheiny: «It is the great privilege of a man who is not bound by the pleasures of this world that no position in life, if it is willed by God, can seem unbearable to him.» Whether or not the son

took these words to heart – at any rate he climbed the military career ladder, commanding the then field battery 40 in 1901 as a captain, becoming a major in 1906. He was assigned in 1912 to transport department 11, which he commanded as a lieutenant colonel until 1919. According to later comments by employees and friends, however, Ernst Schmidheiny mainly discharged his military obligations during the brief holiday period. There was so much to do at home professionally and also for the local community, the canton or the nation that he hardly had time for anything else.

For besides his industrial activities, Ernst Schmidheiny enthusiastically devoted himself to public affairs. On returning to Balgach, he offered his services to the village fire brigade, which had been formed with his help, and was appointed a «phantom fireman», who – before the introduction of the telephone – had to muster his troops if a fire broke out. A record book of the Balgach voluntary fire brigade shows that «Lieutenant Ernst Schmidheiny» quickly became its chief. Twenty-three men were in the «voluntary corps», to which the parish council granted 800 francs and the inhabitants and the local savings bank contributed the «tidy sum of Fr. 609.00». For this «the necessary items, uniforms for the men, four ladders and an equipment wagon» could be ordered.

In 1903 the citizens of Balgach elected Ernst Schmidheiny to the parish council, where he became acquainted with the hardships suffered by the vine-growers and instigated the setting-up of the Balgach vinicultural cooperative, and in 1905 he became a member of the St. Gallen cantonal parliament. With his brother Jacob and others, he established a primary school in Heerbrugg, which was opened in

1906 as a non-denominational institution, in contrast to the then denominationally separate primary schools in the Rhine valley. It saved the children of Heerbrugg the long journey to Balgach. Ernst Schmidheiny finally also became a member of the school board, which he chaired from 1927 to 1933. And in 1911 he entered the National Council (the lower chamber of the Swiss parliament) as a Liberal, remaining a member of this body and of the St. Gallen cantonal parliament until 1919.

### **Electricity and energy**

However, it was business affairs that occupied Ernst Schmidheiny most of all. In 1902 his younger brother Jacob, who now held an engineering degree from the ETH in Zurich, had returned to Heerbrugg. The two of them first jointly devoted themselves to the development of the brick and tile business before Ernst decided to concentrate entirely on cement and subsequently asbestos cement. Both of them delved into new areas: the regulation of the Rhine and regional and national electricity policy – two fields which were closely linked. They were the foundation for the growth of industry in their home region; they were vital to the creation of work and jobs in the Rhine valley.

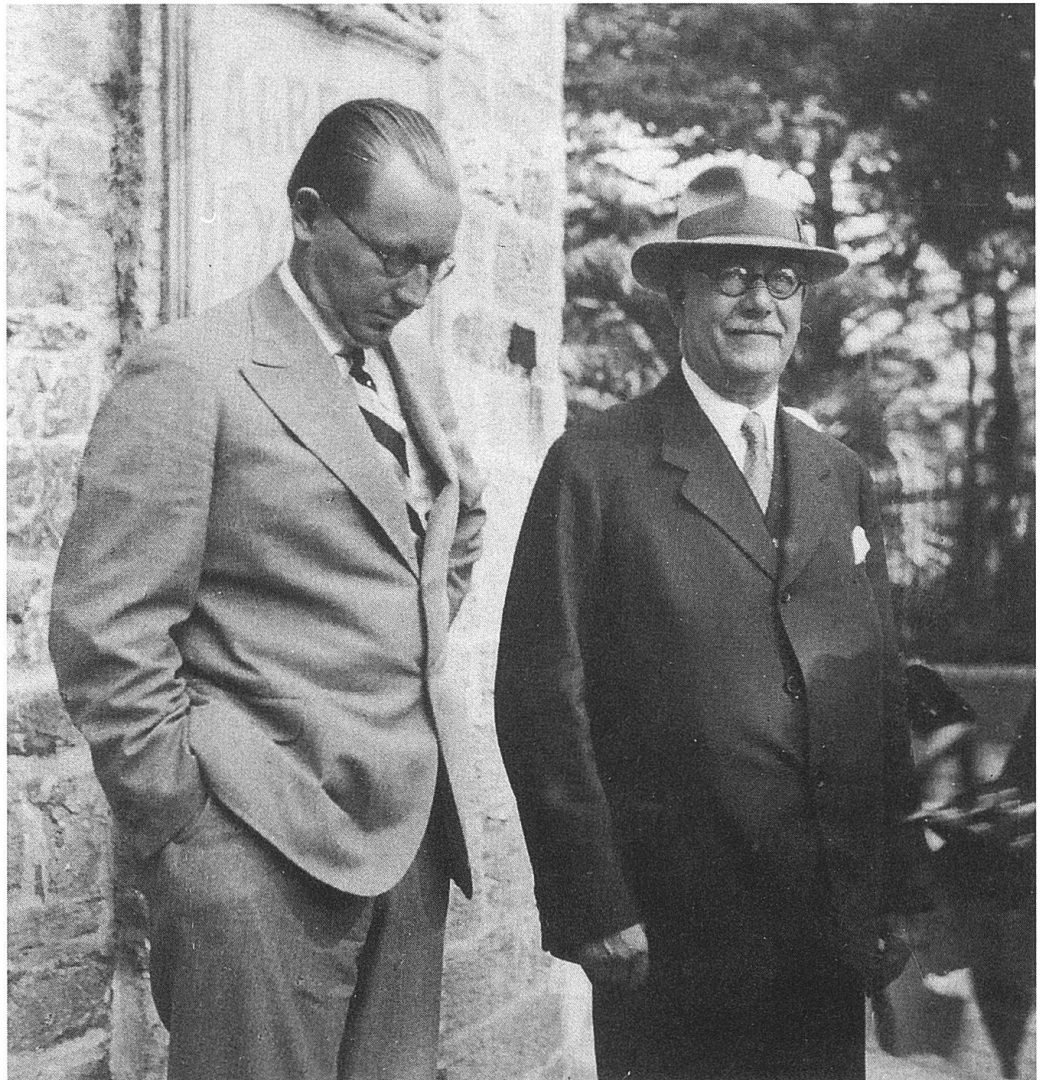
In 1904 Ernst Schmidheiny, together with Adolf Stoffel, was among the founders of the electricity company *Elektrische Kraftversorgung Bodensee-Thurtal*. On 8 August of that year an initiative committee met under his chairmanship to define the conditions for supplying power to the St. Margrethen-Lake Constance-Amriswil area. A year later, on 8 August 1905, the private joint-stock company for this purpose was formed. It would buy the electric power from Kubel power station near St. Gallen, a private

undertaking, and from *Motor AG für angewandte Elektrizität*, a private company founded in 1895 by Walter Boveri which engaged in the financing, construction and operation of electrical and electrochemical undertakings.

Ernst Schmidheiny had entered the electricity industry as a private individual, but was of the opinion that the exploitation of the water power resources was ultimately a matter for the public authorities; he believed that officialdom ought to be persuaded to look after the interests in question. In November 1905 he submitted a motion as a member of the Liberal faction in the cantonal parliament of St. Gallen. The spirit of his proposal was that the cantonal administration should think about «how the still unexploited water

power resources of the canton of St. Gallen could be preserved for the general good». However, parliament and the administration took their time in dealing with the matter. Not until 15 May 1906 did the Council declare the motion to be relevant, and even then only because private individuals had applied for permission to build the Tamina Gorge power station which was opposed by certain parties on nature conservation grounds. The administration dawdled even longer, initially citing every conceivable difficulty which allegedly stood in the way of Schmidheiny's plans. In 1908 the submitter of the motion redoubled his efforts in the form of a parliamentary question, and in 1909 a commission was at last set up with Ernst Schmidheiny as a member.

*Ernst Schmidheiny  
father and son in 1930*



In the meantime, however, he had developed his company *Bodensee-Thurtal* to the extent that in 1908 the supply contracts with *Motor AG* and Kubel power station were signed and sealed and the overhead power lines and a substation in Wil were under construction or already completed. However, the St. Gallen administration persisted in its delaying tactics and initially urged local authorities not to enter into power supply contracts with private companies. In the spring of 1911, though, the organizational rules were at last drafted for the St. Gallen electricity company; although they did not yet provide for the building of power stations, they did plan for the purchase of the most important power stations and main substations in the canton. At the same time, the canton of Thurgau began to prepare the legislation for a canton-owned electricity supply. *Bodensee-Thurtal AG* was thus able to transfer its installations in the two cantons to the cantonal utility companies. In addition, the responsible politicians and experts in St. Gallen and Appenzell began to realize the advantages of mutual cooperation in the energy sector. In 1914 the electricity company *Aktiengesellschaft der St. Gallisch-Appenzellischen Kraftwerke (SAK)* was formed. As in the St. Gallen cantonal electricity company and Kubel power station, Ernst Schmidheiny also served as vice chairman of the management committee of the SAK and was, as a chronicler put it, the real «driving force». The commemorative brochure «25 Jahre SAK 1914–1939» described him as «the chief instigator and promoter of the St. Gallen cantonal electricity supply». His younger brother Jacob replaced him on the board of directors of SAK in 1926 and on its management committee in 1937.

Ernst Schmidheiny's close rela-

tionship with electricity and power supplies was of course known nationwide and made use of it accordingly. In 1912 he joined the board of *Motor AG für angewandte Elektrizität*. He was also on the board of *Columbus AG für elektrische Unternehmungen*, formed in 1913 and based in the canton of Glarus, whose South American interests were quite successful. The two companies merged in 1923 to form *Motor-Columbus AG*, which began to play a leading role in the Swiss power plant construction industry. Until his resignation in 1933, Ernst Schmidheiny was also an active member of its board of directors as a specialist in electricity and, in particular, an expert in the cement field.

### **Ernst and Jacob II work together in the brick and tile industry**

The building materials industry was to have a decisive influence on Ernst Schmidheiny's entire career. Following his father's death in 1905, he continued to devote himself intensively to the inherited brick and tilemaking activities together with his younger brother Jacob. From 1907 Ernst ceased to be a partner in his father's firm *Jacob Schmidheiny's Söhne*, which had been renamed *Jacob Schmidheiny & Co*. In 1906, however, the two brothers were members of the board of directors of the Zurich brick and tilemakers *Dampfziegelei Heurieth*, which on their initiative amalgamated with *Ziegelei Albishof* in 1907 to form *Ziegeleien Albishof-Heurieth*. On 1 June 1912, at four in the afternoon in the guildhall «Zunft-  
haus zur Zimmerleuten», the two united works merged with *Mechanische Backsteinfabrik Zürich* to form *Zürcher Ziegeleien*, a name which was to become more and more important in Swiss industry.

Ernst Schmidheiny initially ruled the roost at *Zürcher Ziegeleien*. He became the first vice chairman under the chairman, Professor Rudolf Escher, and joint managing director with Hermann Keller-Malzacher – at a difficult time. The years around 1880 were to a certain extent a boom period for the Swiss building industry. The capacity of the brick and tileworks rose in Switzerland by 60%, partly as a result of the change from craft to mechanized working methods. In 1898, however, the banks imposed credit restrictions to curb the speculative fever of the latter years of the 19th century; the building industry slid into recession and the brick and tileworks faced disastrous overproduction. Prices fell below the cost of production; however, various attempts to restrain the chaos through regional price agreements initially failed. The crisis – partly the fault of the industry itself and partly due to external factors – intensified towards 1910. The «great enemy of bricks» turned out to be reinforced concrete; fierce competition with the cement industry and numerous bankruptcies were the inevitable consequence.

Moreover, dark clouds appeared on the horizon: an armed conflict was looming between Germany and France. It was to lead to the outbreak of the First World War and, for the time being, bring the brick and tile industry to a complete standstill. Even when the factories were able to get going again in 1915, they only did so at half strength. Production, sales and especially profits fell: the huge increase in the price of coal and the soaring rates of pay could not be offset by price increases. The company also suffered from the loss of the skilled workers from Italy, for whom unskilled local Swiss workers were a poor substitute.

### **The «control of prices and production»**

Nevertheless, the war also had some positive consequences. Firstly, during the lean years the industrialists increasingly began to think about their responsibilities to their employees. In 1912, in the first year of its existence, *Zürcher Ziegeleien* had set up an invalidity and old-age pension fund, which paid out benefits. In 1919 there was talk at the annual general meeting of the intention to establish «a special foundation in accordance with chapter II, section 3 of the Swiss Civil Code», for «it was the employer's duty to contribute towards social welfare provisions for his workers. Anyone who in this day and age has not yet understood that an employer's obligations to his workers are not fulfilled just by paying their wages is behind the times». In the years to come, considerable attention was paid to social welfare. In 1923 *Zürcher Ziegeleien* set up a welfare foundation; in 1936, under Jacob Schmidheiny II, it took on the form of an insurance scheme (a collective insurance scheme for the white-collar employees, a savings-linked scheme for the shop-floor workers) and was continuously expanded.

Secondly, the war forced the brick and tile industry to undertake radical rationalization measures, make important technical improvements and concentrate on the best developed factories. Whether the whole industry only survived the lean years because it had joined together into a solid cartel, as the annual reports of *Zürcher Ziegeleien* from those years claimed, remains an open question from today's point of view. At any rate, Ernst Schmidheiny played a decisive role in the organization and the cooperation of the brick and tile industry. As far back as 1899 he had carried out a

survey among brick- and tilework owners in Switzerland to find out whether and to what extent controls on prices and production were desirable. He declared: «We should not forget that price controls simply cannot be maintained, despite the severest penalties if production and consumption are not harmonized.» The results of Schmidheiny's efforts were inconclusive and production controls were regarded with great suspicion: of the 82 replies received (representing two thirds of Switzerland's total production), 40 were in favour of price and production controls and 20 were against, while 22 were undecided.

In the end, however, the professional organization was successfully consolidated in the form of the «*Verband schweizerischer Ziegel- und Steinfabrikanten*» (association of Swiss tile and brick producers), and in due course the producers joined together to conclude actual cartel agreements. Although they may be understandable in times of crisis and war, such agreements are regarded unfavourably today. In those days, of course, the association's policy appeared indispensable to this close-knit community of businessmen. Even in 1918 the chairman, Prof. Rudolf Escher, mentioned in his statement to the annual general meeting the firm *Ziegelei Männedorf*, which was not a member of the «*Genossenschaft Zürcherischer Ziegeleibesitzer*» (federation of Zurich brick- and tilework owners) and therefore could «upset our price policy at any time as <unregulated> brickworks». The way to remedy this supposed outrage was clear: *Zürcher Ziegeleien* took over the trouble-maker. «We have acquired all the shares and so the brickworks is ours», we read in the minutes of that year's annual general meeting.

The relationship between *Zürcher*

*Ziegeleien* and the company *Ostschweizerische Ziegeleien*, which was run by Jacob Schmidheiny and mainly comprised the original family business in Heerbrugg together with the works in Istighofen, Bruggwald near St. Gallen and Oberriet, at first appeared to be vague and was mentioned in all the annual reports either strangely cursorily or not at all, even though in reality there were of course close ties – again under the aspect of cartelization. The minutes of the annual general meeting of 1915 also speak of the understanding «between the brick- and tileworks of eastern Switzerland and Zurich» which had been «arranged many years ago under the leadership of far-sighted men».

In that year Ernst Schmidheiny was still actively involved in *Zürcher Zie-*



*geleien*. Then, however, his war-related work as a Swiss negotiator for trade agreements began to take up much of his time. In 1916 he resigned as managing director of *Zürcher Ziegeleien*. And nine years later, in 1925, he also retired from his position as vice chairman of the board of directors «on account of being overburdened with other work», according to the minutes of that year's annual general meeting. His brother Jacob took over his post; in the building industry, Ernst concentrated entirely on cement from now on.

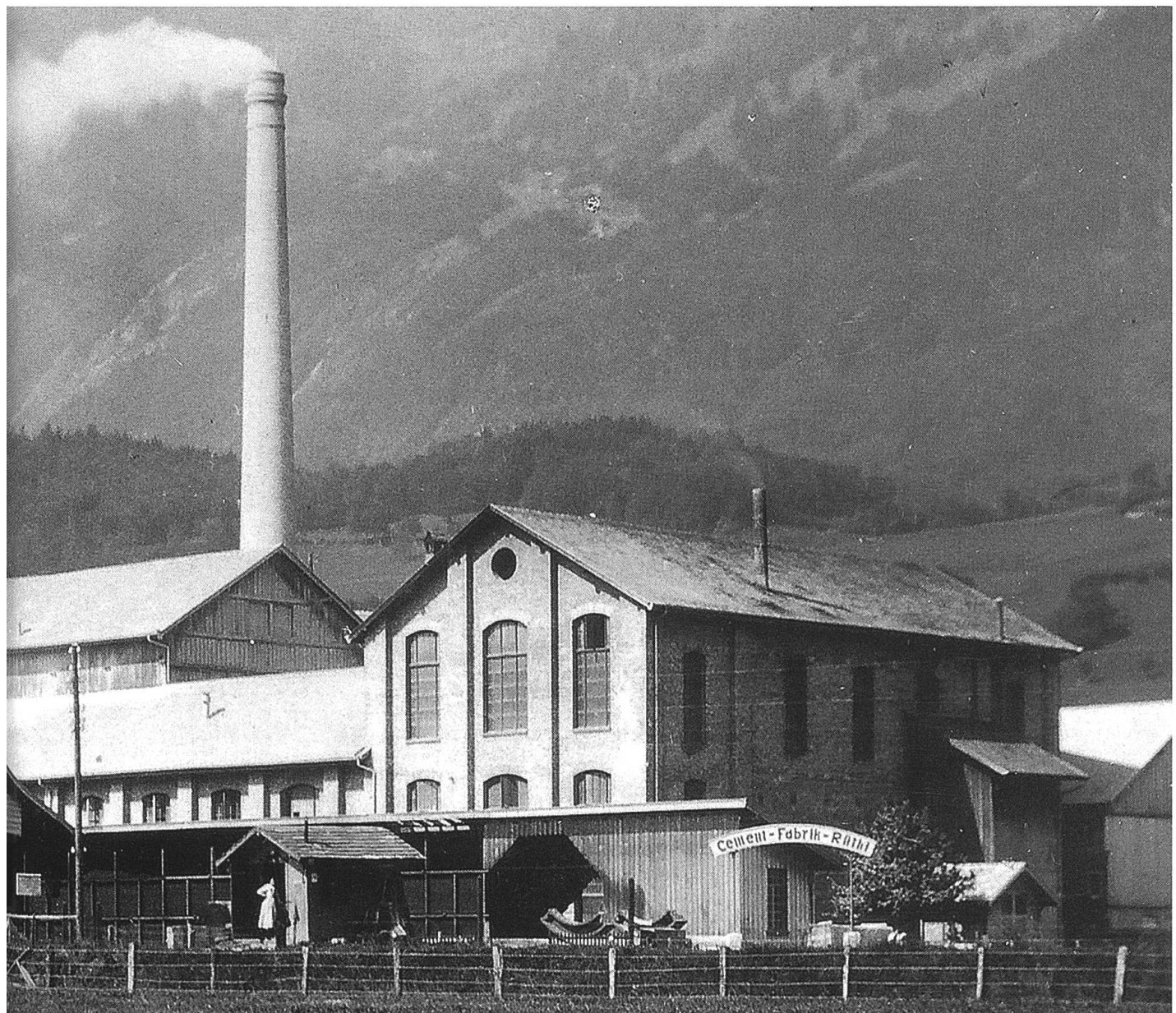
*In September 1906 Ernst Schmidheiny I forms Rheintalische Cementfabrik Rüthi with Anton Dufour of Rheineck and Heinrich Spoerri of Flums; the plant was closed eight years later following the merger with Aargauische Cementfabrik «Holderbank». A plaster factory was opened on the site in 1929.*

**«Bonding agent made from fine-ground limestone and clay marl»**

The first steps in this field were a risk, but Ernst Schmidheiny recognized at an early date that cement

would become one of the most important building materials of the 20th century. In this he was clearly influenced by the Hungarian Ludwig von Tetmajer (1850–1905), who was professor at the ETH in Zürich and in 1879 took the initiative to found the institute which was later to become the «*Eidgenössische Materialprüfungsanstalt*» (Swiss materials testing institution). Tetmajer did outstanding work particularly in research of iron structures, railway-building materials, aluminium and, above all, cement.

The history of this «bonding agent made from fine-ground limestone and clay marl» (so the dictionary definition runs) essentially goes back to the 18th century and the first half of the 19th. In 1824 Joseph Aspdin, a Leeds bricklayer, applied for a patent for an



improvement in the manufacture of artificial rock, naming his product «Portland cement» after the small town of Portland on the south coast of England. At that time, a limestone was quarried there which was so durable and beautiful that it was often used for prestige buildings in London. Aspdin intended its name to indicate that a material could be made with his cement which was equivalent in strength and durability to the stone quarried in Portland. The Portland cement made by the Leeds bricklayer was, of course, not yet the material which we now know by this name. It took another Englishman, Isaac Charles Johnson, to perfect Aspdin's invention in 1844, the true year of birth of «Portland cement».

Ernst's father Jacob had already taken an interest in the new building material and had acquired a shareholding in the Unterterzen cement works on the Walensee, which was of course taken over by his sons. In the Rhine valley, Ernst Schmidheiny was guided in the development of this industry by two considerations. Firstly, the area seemed to be in a favourable geographical location from the point of view of its raw material sources. Secondly, he sought to create new jobs in his home region. At the beginning of the 20th century, the inhabitants of the Rhine valley were heavily dependent on the highly recession-prone embroidery trade, which mainly produced for export and was vulnerable to unpredictable changes in fashion. Although many small farmers had found a worthwhile source of additional income in the embroidery trade, either in factories or in home-working, this was increasingly at risk. Any new industry could help to avert hardship.

As a location for cement works, Ernst Schmidheiny had his eye on the

village of Rüthi in the canton of St. Gallen. The parish council was willing to assist him in the necessary clarifications and in buying the land. He initially estimated the capital cost at one million Swiss francs, a sum which he raised together with some friends, including Anton Dufour, the son of a silk manufacturer in Thal, and Heinrich Spoerri-Jakob of Flums. The company *Rheintalische Cementfabrik Rüthi AG* was formed on 14 September 1906. However, the works cost considerably more to build than he had estimated; the firm's capital had to be increased immediately to two million francs. The enterprise was in fact not very profitable; the raw material was not always of satisfactory quality. But Schmidheiny's optimism remained unbroken: in 1907 he and Anton Dufour set up another enterprise, a cement pipe factory in Rheineck.

However, around the turn of the century, in the throes of a recession which had begun some ten years earlier, times were also difficult for the cement industry and the competition from Switzerland's neighbours grew fiercer and fiercer. Defensive measures, reciprocal agreements and mergers appeared to be inevitable not only for the brick and tile makers but for other producers of building materials too. As the founder of the Rüthi cement works, Ernst Schmidheiny got in touch with the manager of the closest similar factory, Borner in Walenstadt and with him formed an eastern Swiss cement industry group. But for a long time he was reluctant to side with those cement firms which were aiming at creating more extensive cartels.

#### **The cement cartel: a matter of survival**

The efforts of these factory owners seemed to produce only meagre re-



*On 20 and 21 February 1932, Ernst Schmidheiny celebrated his friend Colonel Rudolf Frey-von Vigier of Luterbach's 25th anniversary as chairman of E.G. Portland. In the front row on the left is Dr. Ernst Martz, president of the Association of Swiss Cement, Lime and Plaster Manufacturers, in the middle is Ernst Schmidheiny I and next to him is Rudolf Frey, who met his death together with Ernst Schmidheiny on 15 March 1935 in the Sinai Desert.*

sults at first. Around 1870 the two cement works in Luterbach (near Solothurn) and Saint-Sulpice (near Neuchâtel) that should have supplied the building materials for the new railways being built were under enormous pressure from competitors in France and Germany. In 1880 Robert de Vigier of Solothurn took the initiative to set up a cement-makers' association, whose membership had grown to 26 firms by 1885. This enterprise was intended to demonstrate to the public that Swiss building materials were just as good as foreign ones. The demonstration succeeded, but the pressure on prices remained. Proposals made in 1884 for a closer union with a joint sales office and minimum recommended prices came to nothing. Not until 1895 did Rudolf Zurlinden, the founder and owner of *Jura-Cement-Fabriken* with works in Aarau and Wildeggen, succeed in establishing the first real cartel, the aims of which were to control prices jointly and to ward off imports. But by 1900 this cartel too was

defunct, its dissolution heralding the return of overproduction and giveaway prices.

A year later, in 1901, the second cartel was formed, the *Aktiengesellschaft der Vereinigten Portland-Cement-Fabriken*, known as AG Portland. It was headed by Rudolf Frey, who had been manager of *Cementfabrik Vigier* in Luterbach since 1901 (and who was to meet his death in 1935 together with Ernst Schmidheiny in the air crash in the Sinai Desert). This second cartel had ambitious aims: a joint distribution organization, identical prices and freight rates at all railway stations and the fixing of market shares in the form of quotas were intended to protect its member works. In 1909, however, this attempt also failed: a renewed drop in sales and the ever more savage competition from Germany led to another bitter struggle for market shares and price undercutting in breach of the cartel agreement, due to the unwillingness of some factory-owners to exercise self-restraint.

In September and October 1910, with the assistance of the banks *Credit Suisse* and *Swiss Bank Corporation*, an attempt was made to form a third cartel – again without success at first. For the first time, however, Ernst Schmidheiny attended the meetings as a representative of *Rheintalische Cementfabrik Rüthi*. Under his influence, the third cartel, which was listed in the Commercial Register under the name *Eingetragene Genossenschaft Portland* (abbreviated to *E.G. Portland*), was finally established on 23 November 1910. Its purpose was again «the elimination and prevention of unfavourable conditions of competition» or, according to another – official – definition «the protection of the Swiss cement industry, the safeguarding of its general interests and the preservation of order in the cement trade». The aims were, above all, to close works that were unviable, to modernize the viable ones, to contractually fix prices and terms of delivery, to control and coordinate trading and transport through a central sales organization and to assign a specific production quota to each member. *E.G. Portland's* rules were more flexible than those of its predecessor *Portland AG*. This was in line with the intentions of Ernst Schmidheiny, who was immediately elected to the board of the new cartel; he wished to stick to the essentials and avoid any unnecessary administration.

However, Ernst Schmidheiny adhered to the cartel's basic principle. He had become convinced that the non-metallic minerals industries in Switzerland could only blossom if the trade groupings amalgamated. Future generations of cement producers continued to abide by this axiom, although the principle of the cartels came increasingly under attack in the course of time. How could the principles of eco-

nomical liberalism, which were held high by every representative of the Schmidheiny family, be reconciled with control of the private sector through cartels (*E.G. Portland*, for example)? In a lecture to the St. Gallen Trade and Industry Association in January 1957, Ernst Schmidheiny's younger son Max admitted that *E.G. Portland* had «at that time fought the outsiders». But «it was not a matter of increased profit or deliberate domination of the market by the cement cartel, but of the very existence of the cement industry», for, so Max Schmidheiny explained in the same lecture, «the exceptional conditions in the cement industry ruled out, «on the grounds of economic unavoidability» – as the Swiss Price Commission also recognized – a return to the «old forms of the free-market economy»». Moreover, the cement works used the ecologically effective argument, especially in later years, that only a cartel was able, thanks to favourable charging agreements with the Swiss Federal Railways, to ensure that most of the heavy cement traffic went by rail, thus taking traffic off the roads.

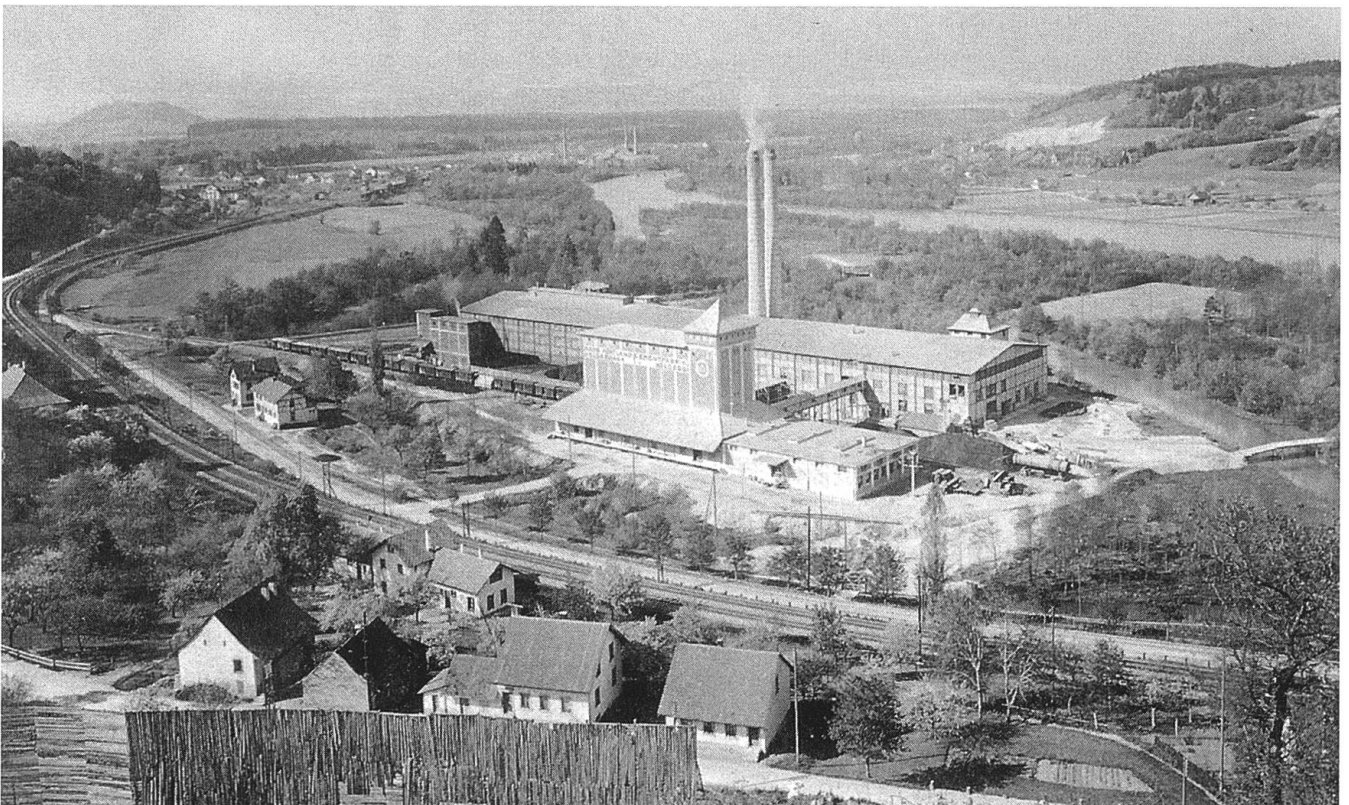
The dispute over the cement industry cartel continued to rage beneath the surface right into the 1990s. In 1992, however, Ernst Schmidheiny's grandson Thomas and the «*Holderbank*» company headed by him succeeded, by means of acquisitions and complete restructuring, to bring well over half the Swiss cement market under his control. This essentially made the cement industry cartel redundant; its dismantling will be dealt with later.

### **The birth of «Holderbank»**

In 1910, though, things were seen differently. At first, it was a question of preserving the still very fragile cartel structure. Shortly after its forma-



*The site of the «Holderbank» cement works before the start of building work (at the top left is Schloss Wildegg)...*



*... and after construction of the new buildings in autumn 1912. Production began in 1913.*

tion, *E.G. Portland* was threatened by new dangers. Its main worry was the project for a Portland cement plant in Holderbank near Wildegg in the canton of Aargau. The established cement manufacturers united in the cartel feared around 1912 that capital from Wilhelminian Germany, which was economically very aggressive, could find its way into projects for new cement works, including this one in Holderbank. The board of *E.G. Portland* therefore asked its member Ernst Schmidheiny to speak to the Basel personages who had been named in connection with the project and persuade them to drop their plans. However, the mission was a total failure; on the contrary, Schmidheiny's interlocutors declared that they would compete against the existing cement industry with all their might, even though they politely assured him that they «harboured no hostility to it». They revealed to Schmidheiny into the bargain that the works in Holderbank would be equipped with the then novel rotary kilns, which were reported to be more efficient than the old shaft kilns. Furthermore, the firm was thinking of offering its customers a highly modern special cement. And on 15 February 1912, the company *Aargauer Portland-cementfabrik AG mit Sitz in Holderbank* was officially formed. The management included the Basel banker Henri Rieber, who had previously been a member of the board of directors of the Laufen Portland cement works, and general manager Adolf Gygi, the son of Philipp Gygi, who had owned lime works in Holderbank for many years and had carefully prepared the land deals for the new cement works. Adolf Gygi was later to become manager of the works. On the board of the newly formed company sat (besides a number of people from Switzerland and Alsace) Charles

Eckel of Basel from the banking house Vest, Eckel & Cie; Edmund Schultness of Brugg, a barrister and member of the Council of States (the upper chamber of the Swiss parliament), was elected chairman. By the end of 1912, however, he had become a member of the Federal Council and so resigned from the board of directors. There was no sign of German influence.

First of all, a lawsuit took place between *E.G. Portland* and the founders of «*Holderbank*», which led to an amusing and conciliatory incident. The competent civil court in Basel also summoned the parish council of Holderbank to appear as witnesses in the proceedings. However, the council said that it knew nothing whatever about the planned cement works. The presiding judge became angry; surely, he said indignantly, the local authorities must be aware of the large purchases of land by the initiators of the project? But the witnesses stuck to their claims, until it was discovered that the wrong parish council had been summoned: the councillors in the courtroom were not from Holderbank in the canton of Aargau but the one in the canton of Solothurn...

In March 1913 the «*Holderbank*» cement works, for those days ultra-modern, went into production. In May of that year it became a member of *E.G. Portland*. This, and the agreement with the other two new works in Siggenthal and Vouvry (Valais), were due to Ernst Schmidheiny's extraordinary diplomatic skills. He knew how to turn opponents or vacillators into allies or friends. In the case of «*Holderbank*» he had realized the technical superiority of the new firm in good time. He therefore attempted, over several months, to convince the owners of the various other firms of the need to join forces and, where necessary, also to get them

to close unprofitable plants. The new works also demanded their share of the market, which they could only receive if older firms handed over a piece of their quota. Schmidheiny himself set an example: he gave up his own works, *Rheintalische Cementwerk Rüthi*, which was too weak to withstand the competition, as one of the first. On 30 September 1914 it merged with «*Holderbank*» and was closed down. Schmidheiny joined the board of directors of the new company, rising to become managing director and, in 1921, chairman. Many years later, he atoned for his «crime» against the Rhine valley: in 1923 he joined the board of *Gips-Union*, and in 1929 a plaster factory was built on the site of the closed cement works.

In 1913 Ernst Schmidheiny won from the members of *E.G. Portland* «unanimous thanks and highest appreciation for the admirable way in which he accomplished his work». His diplomatic skills would subsequently be proved and recognized; he was a much sought-after mediator in professional circles and in public affairs. His professional colleague and comrade-in-arms Rudolf Frey brought him onto the board of *Vigier Cementfabrik* to implement the necessary closure of the Luterbach and Rondchâtel plants and so concentrate on the more important operation in Reuchenette (Berne). A similar contractual association linked him with the company *Portlandcement Laufen*, and substantially reinforcing the «*Holderbank*» group's position.

### **Head of the Barter Office**

However, the First World War put a stop to any further expansion of Ernst Schmidheiny's companies and took up much of his energy. In 1913 and 1914, Switzerland was absolutely unprepared for the conflict. In particular, the

idea of an extensive economic war seemed to be totally foreign to Switzerland's politicians, and nobody was especially worried about the fact that the country was completely dependent on imports for at least two fifths of its supplies of basic foodstuffs and energy. In 1912 the Federal Council had in fact decided to lay up 60 days' stocks of grain. But even this had evidently never really been done: on the outbreak of war, so Ernst Schmidheiny said later in a lecture on «Supplying Switzerland's economy and the difficulties involved», the available stock of bread-making grain would have lasted for two weeks at the most.

The politicians in charge long nurtured the illusion that the situation had been saved with the recognition of the declaration of neutrality of 3 August 1914 and the military protection of Swiss territory from foreign attack. They were unable and unwilling to recognize that in reality, Switzerland had given up a large part of its sovereignty and that economics and politics had become an indissoluble whole. The response of the government in Berne was at first confused; a clear economic policy was nowhere in sight, even though the situation very quickly became serious. Both sides in the war – the allies and the central powers – had initially embargoed all exports to Switzerland; as early as the end of August 1914 the German government banned the export of certain products. Exceptions were only possible if the neutral party offered products which were scarce in Germany.

To survive, therefore, Switzerland had to negotiate as quickly as possible with the various foreign powers. In December 1914 the first «barter transactions» took place; these, however, proved quite difficult. With its limited range of goods, Switzerland always found itself at a disadvantage; more-

over, its diplomats turned out to have insufficient knowledge and experience for this delicate task. The department of commerce, which was under the control of the Political Department, was, according to a contemporary record, «unable to cope (...) with the new state of affairs. The opening of new offices and the recruitment of new officials proved unavoidable. In the department of commerce, there are merchants from all over Switzerland coming and going from morning to night, as if it were a bazaar». For it really was a bazaar: as both Switzerland and the warring countries had imposed numerous import bans, a real system of barter developed. The various neighbouring states only exported this or that product to Switzerland if they received certain other goods in compensation. «Goods were no longer supplied in exchange for money, but only in exchange for other goods» – in an elaborate accounting system: sugar for rice, cheese, aluminium, condensed milk, nitric acid, and so forth.

The situation gradually became more and more complicated. So the department of commerce finally decided to look for someone with the stature and skills to ensure, on an official basis, that the country was kept supplied through these barter transactions and to carry through the necessary big barter deals in Berlin, Vienna or Bucharest in a commercially and technically correct manner. The head of the Political Department, federal councillor Arthur Hoffmann, chose the industrialist from Heerbrugg and member of parliament for St. Gallen Ernst Schmidheiny as negotiator. The latter suggested to the Federal Council that a proper Barter Office be set up; this was done at the beginning of 1915, with himself as its manager. His job was to act as an intermediary in the extremely delicate and laborious nego-

tiations between the *Trust Agency for the Importation of German Goods into Switzerland*, set up in June of that year, and the allies and thus to secure a minimum level of supplies for Switzerland. This work necessitated extensive travel, especially to Vienna, Bucharest, Budapest, Berlin, Paris and other focal points of the economic war, where Schmidheiny constantly had to justify himself to ministers and various «excellencies and heads of section» in an extremely difficult dialogue.

How tough the negotiations were is shown by a letter from Schmidheiny to federal councillor Hoffmann dated 21 July 1915. The German negotiator, Dr. Johannes, suddenly disputed that the German Reich had given any undertaking the right to supply Switzerland with coal. He made statements which Schmidheiny could only interpret as unveiled threats. Switzerland's emissary asked «very naïvely», as he himself put it: «So, do you in fact want to force us into the war?» This the German then strongly denied; Schmidheiny, he said, ought to understand his words more as backing for Switzerland against the Entente...

There were more unwelcome experiences to come. The Entente powers, especially Great Britain, intensified the economic war against Germany consistently and according to plan. In October 1915 they forced the setting up of the Société Suisse de Surveillance (SSS), an organization which was actually constituted under private law but was officially certified by a confidential memorandum of the Federal Council. The SSS succeeded, as the historian Hans Ulrich Jost subsequently stated, «in monitoring most of the foreign trade and even the barter traffic with the central powers». In 1916 the end of the by now crumbling arrangement with Germany was in

sight. The Entente's supervision of the barter traffic became more and more rigorous and the central powers, for their part, began to be increasingly miserly with their exports to Switzerland. As the trade war intensified, Germany cut off its coal supplies; other imports were prevented by the activity of U-boats in the Atlantic as the United States entered the war. In 1917, the same year that federal councillor Hoffmann was obliged to resign from his post, Ernst Schmidheiny obtained his release from his post as head of the Barter Office, which was then abolished. At the Federal Council's request, however, he remained a negotiator in dealings with foreign powers until the middle of 1918.

#### **From the «beans deal» to the «Schmidheiny affair»**

In late 1914 the Swiss government had spoken of using Schmidheiny as a negotiator in the service of the nation's supplies for «six to eight weeks». These became several years, during which the head of the Barter Office sacrificed (he said) five sixths of his time to the state – for an allowance of 30 francs a day! Schmidheiny found little time for his private affairs, and even less to defend himself against press attacks launched against him early in 1918.

The cause was an obscure and involved «beans deal» from the year 1916. Schmidheiny had been ordered to buy 50 to 100 wagonloads of beans in Romania to supply the army. The delivery subsequently turned out to be unnecessary; the army cancelled the order and Schmidheiny entrusted the beans to a fellow countryman by the name of Gilli, who got hold of other buyers as well as the necessary permits and made a profit on the deal. Another Swiss, Otto Peter, went all out to stir up trouble over the matter. He

would have liked to have been involved in the deal, and he began a campaign of libel against Schmidheiny, in which the Swiss Association in Bucharest and the local Swiss general consulate – who hated each other's guts – also became involved. Peter received support from western Switzerland; the «Schmidheiny affair» appeared to be just the thing to deepen further the «rift between German-speaking and French-speaking Swiss» which the appointment of General Wille had opened up at the beginning of the war.

The Federal Council ordered an administrative investigation of Ernst Schmidheiny, who, for his part, sued Peter for defamation and libel. He also demanded a parliamentary investigation into his own affairs; a fellow member of parliament from Geneva, Horace Micheli, the long-time parliamentary correspondent for the «Journal de Genève», made the same demand. The investigation was entrusted to a sub-committee of the Neutrality Commission. Its members included the Fribourg conservative Jean-Marie Musy, who subsequently became a federal councillor, and the Zurich socialist Hermann Greulich. On 15 May 1918 the Commission delivered a closely-printed 21-page report, and in June the National Council cleared Schmidheiny of any wrongdoing in a one-day debate. The «accusations of personal financial involvement, unacceptable favouring of third parties or other misuse of his official business» were, it said, «entirely groundless and unjustified». Even the workers' leader Greulich, who was otherwise not exactly well-disposed towards the bosses, supported Schmidheiny with the words «I am in complete solidarity with the sub-committee». In October of that year, the Romanian-Swiss Otto Peter was found guilty of defamation

and libel by a lower court; the high court in Berne increased the penalty imposed, and the Federal Supreme Court confirmed this judgement in its entirety.

Thus Ernst Schmidheiny was fully rehabilitated. But the affair did not leave him and his family unscathed. When he retired from the National Council in the autumn of 1919, a certain degree of resignation may have played a part. Schmidheiny also suspected that due to a redistribution of the seats in parliament, the St. Gallen Liberals would lose one seat – possibly his own. He nevertheless had the satisfaction that on his retirement from parliament in 1919, the Federal Council paid him a special tribute in the form of an enormous silver tray, 77 cm (31 inches) in length, «in recognition of the outstanding service given to the nation during the war years». The government's letter of thanks had been preceded by a letter from federal councillor Edmund Schulthess, asking Ernst Schmidheiny whether he would be willing to become Swiss envoy in Rome. Federal councillor Motta and the Italian prime minister Orlando supported this request, wrote Schulthess. But Schmidheiny – in agreement, clearly, with his wife Vera, who had grown up in Italy – had no desire to accept this post, nor did he desire any further political honours.

### **Rescue operations in all quarters**

Ernst Schmidheiny now devoted himself all the more intensively to his industrial interests, which were by no means limited to cement and cement products. One of his most pressing concerns was again to safeguard or create jobs in the Rhine valley. In 1924, he acquired an interest in a company named *Verkaufsaktiengesellschaft Heinrich Wild's geodätischer Instrumente*, which was founded in the

previous year and which will also figure in the biography of his younger brother Jacob Schmidheiny II. And thus he became interested at the same time in *Société de la Viscose Suisse*, which in the summer of 1923 had advertized from Emmenbrücke for suitable building land or an acceptable existing factory site. It received about a hundred offers. Ernst Schmidheiny and his brother Jacob had close social and professional links with the chairman of the board of *Viscose*, Eduard von Goumoens: during his time as director of the Barter Office during the First World War, Ernst had worked closely with Goumoens when he was head of the *Eidgenössisches Ernährungsamt* (Swiss Office of Food). The industrialist from Heerbrugg drew the attention of the chairman of *Viscose* to the favourable conditions in the Rhine valley community of Widnau, which itself pressed to be chosen as the site and in fact was – above all because of the large pool of labour available there. Schmidheiny himself had never invested any money in *Viscose*.

Things were different in the case of another «rescue operation» which Ernst Schmidheiny undertook after the First World War and to which he committed his own money. In 1876 a timber importing and sales firm had been set up in Rorschach near the eastern Swiss border. It was a modest enterprise to begin with, possessing only 13 woodworking machines. Its success, though, was considerable; around the turn of the century, it became necessary to move the firm to a more suitable rail-connected site in St. Margrethen. In 1905 the first big sawmill was erected there. However, the First World War and the difficult times which followed spelt disaster for the company, dependent as it was on imports. The banks refused to grant any more loans; staff had to be made



*Holzindustrie AG St. Margrethen (HIAG) was constituted in 1924 under the chairmanship of Ernst Schmidheiny I.*

redundant. It was only thanks to the far-sightedness and financial support of Ernst Schmidheiny that the firm was saved from failure. Under his chairmanship a joint-stock company was set up in 1924. Operating under the name *Holzindustrie St. Margrethen AG (HIAG)*, sales of roundwood and cut products of all kinds were greatly expanded (especially from 1930 onwards) following the enlargement of the sawmill and the construction of a crate factory and a splitting and planing factory.

**Eternit: «the building material of the future»**

However, even after the end of the First World War, Ernst Schmidheiny's true element was the building materials industry, which included cement and was to be bolstered by an important product line launched by Ernst Schmidheiny. Around 1920 he befriended Jean Baer of Thurgau, general manager and managing director of *Schweizerische Eternit-Werke AG in Niederurnen*. Formed on 22 September 1903, the company exploited an invention by Ludwig Hatschek of Austria. The latter had succeeded in strengthening Portland cement with asbestos fibres. He called his asbestos cement «Eternit» – based on the Latin word «aeternum» or «everlasting». The new building material was praised as having unlimited durability. In those early days nothing was known

about the environmentally harmful or health-damaging effects of asbestos. Instead, asbestos was regarded as the «mineral of the century». The business in Niederurnen flourished initially, and substantial markets opened up. From 1910 to 1914 large quantities of «Eternit» were exported overseas; the chronicle «Glerner Geschichte in Daten» recorded that the works in Niederurnen had «shipped four wagonloads of «Eternit» slabs, 120,000 in all, to Bangkok for roofing the King of Siam's summerhouses». But the common man was also intended to benefit from this miracle material; in Switzerland, the «Eternit house» was promoted as the «Swiss small house of the future», as a «lifeline» for «ordinary people», for «many of our less well paid working-class families».

The First World War and the drying-up of sources of asbestos caused an initial drop in production. After 1919 there was a period of recovery, which now attracted Ernst Schmidheiny's attention. In conversation, Baer had revealed that he was thinking of building a cement plant in the vicinity of the Eternit works, which could independently supply the asbestos cement firm with raw material. This would of course mean new competition for the existing cement works. Schmidheiny again put into practice an old principle which he always adhered to in his business dealings (and which he once wrote in a marginal



*In 1920 Ernst Schmidheiny acquired a majority shareholding in the Niederurnen asbestos cement works, at that time only a modest operation.*

note in a private letter): «If you can't beat them, join them». In alliance with Jean Baer, he decided to acquire a majority shareholding in the asbestos cement works. In December 1923, the existing company was turned into two firms: a manufacturing company named *Eternit AG Niederurnen* and a holding company by the name of *Amiantus AG* (the «indestructible», that is, asbestos), the aim of which was equity investment in asbestos, asbestos cement and bonding agent industry companies. Ernst Schmidheiny was chairman and Jean Baer managing director of both companies.

There now began an extremely dynamic policy of foreign expansion: in 1922–1923 *Eternit-Werke Niederurnen* had acquired an interest in *Eternit SA Haren*, based near Brussels, and

in 1924 *Amiantus AG* took a stake in the Belgian firm *Cimenteries & Briqueteries Réunies SA* of Antwerp, Ernst Schmidheiny being voted onto its board. He subsequently made two journeys to Cyprus to inspect asbestos deposits which might be a useful source of raw materials. However, the planned purchase came to nothing. But the asbestos cement business expanded elsewhere: In 1928 the establishment of *Deutsche Asbest-Zement AG Berlin* was formed, in which asbestos cement factories in England, Spain, France, Belgium, Italy, Austria and Germany acquired interests. This led under Ernst Schmidheiny's leadership to the formation of *Internationale Asbestzement AG (SAIAC)* with the aim of mutually exchanging experience, publicity materials and patents

and jointly purchasing raw materials. Mutual financial obligations were not entered into; the association was intended to promote, in general terms, the development of the asbestos cement industry, which at that time was entirely above suspicion, throughout Europe. Ernst Schmidheiny immediately took a leading role, for he had an invaluable advantage over everyone else: his knowledge of languages meant that he was the only person who could freely negotiate with everyone.

### «Holderbank» goes abroad

Under the leadership of its chairman Ernst Schmidheiny, «Holderbank» began with equal determination to expand its activities at home and abroad – mostly northwards and westwards at first, where fairly close relations already existed. In 1922 «Holderbank» was for the first time engaged as a consultant to build and commission a new cement works in the French department of Seine-et-Oise, to be named *Ciments Portland Beaumont-sur-Oise*. This was a milestone in the history of the Aargau-based company: it marked the start of what was subsequently to be termed «engineering and construction». In April 1923 the two fathers Ernst Schmidheiny and Adolf Gygi sent their sons Ernst II and Max Schmidheiny together with Hans Gygi and cousin Peter Schmidheiny as well as Professor A. Hartmann from the Aargau cantonal school on a three-week fact-finding tour of Belgium and Luxembourg. Their job was to find out what local cement works were potential takeover candidates. Whether it was the result of their report or of other documents – at any rate, in 1925 «Holderbank» acquired a majority shareholding in *Ciments d'Obourg SA* in Belgium, which was then still a small work, but was nevertheless the first foreign company to be controlled

completely by «Holderbank». This was followed a year later by the acquisition of a substantial interest in the Dutch company *Eerste Nederlandsche Cement Industrie (ENCI)*, a firm which was to acquire special importance for father Ernst and his younger son Max; Ernst became chairman of the board, and there Max learnt, so he said later, «cement-making from the bottom up» in 1932–33 as a crane-driver, in the quarries, in every possible type of work – «for 200 guilders a month».

After 1925 further foreign investments came in quick succession: in France, Germany, Egypt and the Middle East – especially in two regions which will be dealt with later. The expansion of «Holderbank» proved to be so ambitious that in time it became necessary to separate manufacturing from the holding-company function. On 29 July 1930, the general meeting passed a resolution to convert *Aargauische Portlandcementfabrik AG* into a holding company named «Holderbank» *Financière Glarus Ltd. (HOFI)* with Ernst Schmidheiny as its chairman; the manufacturing company formed was called *Cementfabrik «Holderbank»-Wildegg AG*. At the same time, *Schweizerische Cement-Industrie-Gesellschaft (SCI)* in Ennenda (later in Glarus) – established in 1906 and which Ernst Schmidheiny had been managing director of since 1919 – was also turned into a holding company, and *Cement- und Kalkfabrik Unterterzen AG* (with its headquarters in Heerbrugg and plants in Unterterzen) was set up as a production company.

By exchanging shares in the two manufacturing companies, a contractual association was formed between *HOFI* and *SCI* which later formed the basis for the worldwide operations of the «Holderbank» group.

## Egypt: Ernst Schmidheiny's destiny

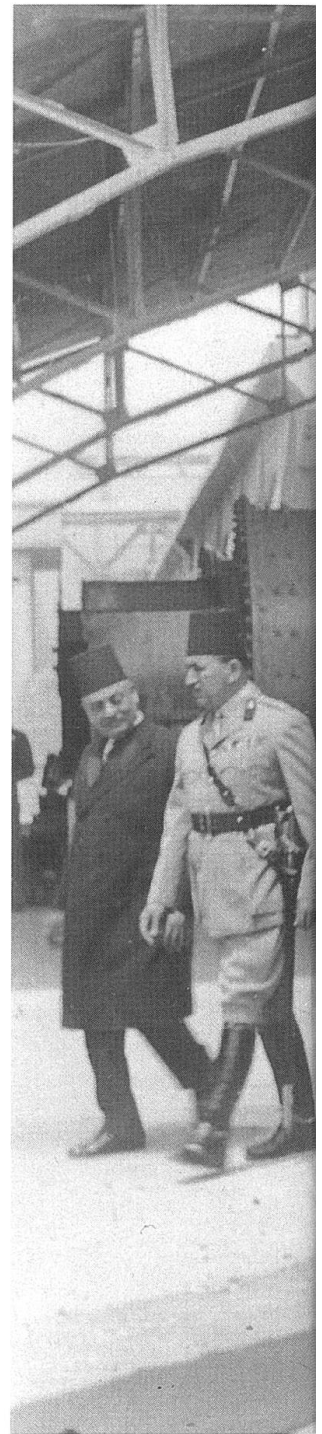
An activity which was to become particularly important for Ernst Schmidheiny and his family was his venture into the Arab world. In the early twenties, during a trip to Cyprus, the Heerbrugg industrialist made a one-week excursion to Egypt, having heard there was an attractive opportunity for landing an attractive deal in the cement industry. He discovered that there was indeed a run-down cement works in Maasarah, but it was so inefficient that massive imports from abroad were necessary. Ernst Schmidheiny therefore decided in 1926 to form a company named *Société Egyptienne Tourah-Le Caire* with the aim of building a modern cement works about 14 kilometres (9 miles) south of Cairo, halfway between there and Helwan. In 1927 Ernst Schmidheiny became chairman of the board of this company, which with «Holderbank», *Amiantus* and *Schweizerische Cement-Industrie-Gesellschaft (SCI)* as its owners was entirely under Swiss control, despite having some Egyptians on the board.

For Ernst Schmidheiny, the formation of this company became his personal destiny. He liked Egypt so much that he decided to go and live there, especially since his wife Vera liked the climate very much for health reasons. This was also the time when Schmidheiny formed his view that Egypt would be able to stay out of all the approaching world conflicts and the country was therefore particularly suitable as a refuge for foreign investment. How wrong he was would only be revealed much later, after Ernst Schmidheiny's death.

The early years of the Tourah works, which commenced production in December 1929, were «fairly turbulent», as his younger son Max wrote.

On 1 May 1931 Ernst Schmidheiny complained in a letter about the legal complications caused by Egyptian lawyers, who were trying to hold up the development of the cement works. The old works in Maasarah had in fact reached the end of its life; it was ultimately merged with Tourah and closed, enabling Schmidheiny's plants to modernize further and to increase its output. At the same time, however, a new rival appeared in the shape of the *Helwan Portland Cement Company*, a Danish firm which subsequently agreed to collaborate with Schmidheiny. This led to what was really a cartel, which was presented as the only possible route to an efficient corporate policy. Product promotion and sales were handled jointly «to improve the effectiveness of the local industry» and thus to withstand the importers, who were attacking with giveaway prices.

For Ernst Schmidheiny, the pinnacle of his Egyptian venture was 25 April 1933, when King Fuad I visited the Tourah cement works, accompanied by a large entourage. The monarch was dressed in western style, with a parasol over his arm and the traditional fez on his head, and Ernst Schmidheiny was ceremonially attired in a stiff top hat, as was the custom of the day. He was visibly delighted by the high honour, even though at that very time he was beset by serious financial worries. «Tourah was dealt a heavy blow in 1931 by the devaluation of sterling and the Egyptian pound that was pegged to it», wrote Max Schmidheiny, looking back on those days. «For Tourah was financed to a great extent with debt, which was denominated in Swiss francs, resulting in considerable exchange rate losses.» This was all the more serious in that during that time *Société Egyptienne de Ciment Portland Tourah-Le Caire* had





*On 25 April 1933 King Fuad I of Egypt, accompanied by a large entourage, visited the Tourah-Le Caire cement works 14 km (9 miles) south of Cairo; for Ernst Schmidheiny it was one of the greatest days of his life.*



*The Tourah-Le Caire cement works, which were designed and built by Rudolf Frey, went into production in 1929; they were nationalized by President Nasser in July 1961.*



*King Fuad I and Ernst Schmidheiny during the visit to the Tourah-Le Caire cement works in April 1933.*

taken on other commitments: in 1933 it had taken control of *Société des Ciments Libanais Chekka*.

### The bleak years

It was mainly the wide-ranging foreign commitments which made Ernst Schmidheiny's position so critical following the «Black Friday» of October 1929, i.e. after the New York stock market crash and the subsequent depression in Europe. The foreign currency devaluations caused his assets to shrink further and further, not only in Egypt but in other countries too. A particularly disastrous role was played by the machinations of an unscrupulous Belgian business associate by the name of Chaney. The property deals with him had spawned the company *Immobilien-gesellschaft Glarus AG*. *Swiss Volksbank* had granted it substantial loans which Ernst Schmidheiny stood as guarantor for. In 1932 he suffered huge losses, above all from guarantees amounting to over 670,000 Swiss francs. The catalogue of guarantees raised fears of further obligations in the current year, which came to approximately a quarter of a million francs. Moreover, tens of thousands of francs' worth of assets were nothing more than credit balances from grants and loans to numerous insolvent individuals and small traders in the Rhine valley. The expenses that had to be paid in bank interest and other charges alone exceeded the total annual receipts by about 100,000 francs.

Schmidheiny feared the worst. In a letter to his wife in 1932 he remarked «It is abominable how bad luck pursues me. One might think that I was the stupidest businessman for miles around.» And he warned his son Max in a letter from Tourah on 30 November 1932 «Let it be your guiding principle in life rather to do fewer deals or to do deals for the account of others,

and have no debts. You have no idea how much, after my busy and successful life, the fact of being in such a difficult position depresses me. I have to summon up all my energies in order not to go under.» In those bleak days he also bequeathed his house in Heerbrugg to his son Max as a precaution. He told his children that if he himself should go bankrupt, at least the estate should not come under the hammer. And on a business trip to Brussels he planned to stay in the second-class hotel *Atlanta*, which he then owned, next door to the *Métropole* – instead of at a more distinguished address: «I don't want to spend any more money when we have a hotel of our own, and I don't think it will matter for reasons of prestige.»

However, it was only the banks that could really help. With his balance sheet as of 31 December 1932, Ernst Schmidheiny sent the chairman of the board of *Swiss Volksbank*, National Council member Schüpbach of Steffisburg, a personal letter which revealed everything about the despair he was then suffering: «Perhaps I could experience another rise of fortune (albeit a modest one); but only if the Volksbank agrees to my proposal, otherwise I will certainly be crushed; things do not even need to get any worse for this to happen.» Schmidheiny continued «If I were now to be forced into liquidation by any party, this would mean a complete collapse. The only possible way for me to emerge honourably from this extremely precarious position and not lose my income is to seek to reduce my obligations. If this is not achieved soon, the disaster will happen, and in these agitated, sensation-loving times the noise and chatter over losses running into millions would go far beyond the facts. I urge you to help me avoid this scandal. You are in a position to do

so without making a sacrifice; on the contrary, this will enable you to take your doubtless very burdensome Belgian interests out of your books and replace them with shares in a Swiss property company.»

The bank, itself in severe difficulties and dependent on state help, hesitated at first, but then realized that an amicable agreement was also in its own interest. It ended up taking over the property company *Immobilien-gesellschaft Glarus* and Schmidheiny was released from the guarantee; the worst had been prevented. At the same time, things began to brighten up for the firm in Chekka in Lebanon; Ernst Schmidheiny wrote in March 1933 that the Patriarch of Antiochia, who formally held the title «delegate for life», had «given his consent to the enlargement of the factory, so we can now make progress despite opposition from Paris».

Of course, this did not solve all the problems, and the crisis had by no means been completely overcome. As late as the beginning of April 1933, Ernst Schmidheiny sent his son Max a letter on his 25th birthday which was nothing less than a cry for help and which in its tone was strangely reminiscent of the imploring words which his father Jacob had once addressed to his sons: «I was granted the pleasure of taking care of you children; (...) unfortunately, I would not be able to take care of Mama if something on a human level should shortly happen to me. I maintain that it is the sons' duty to care for their mother, in such a way that she cannot regard this care as charity! My heartfelt request is that you and Ernst should do this, should it become necessary, in return for my having placed you in positions which offer you great opportunities and are worth more than large fortunes. Money is lost so soon, but there will

always be a need for people who are true leaders. Many a man has what it takes, and he is successful too, but by the time he has reached a satisfactory position, he is old and often exhausted. He also needs a certain prestige, and this is never obtained quickly. It must be acquired over a long period. You have got it from your grandfather and your father. It is your job to preserve and increase it. I very much hope to work with you for many more years to come and again to work my way out of this difficult position. I am strongly relying on your help in this.»

### **The air disaster at El Arish**

This letter was Ernst Schmidheiny's real last will and testament. For his hope that he would be able to work with his sons «for many more years to come» was to be dashed two years later. In February 1935 Ernst Schmidheiny was staying in Cairo with his elder son Ernst II and Rudolf Frey, chairman of the board of *E.G. Portland* and the actual builder of the Taurah works. On 11 March they set off for Jerusalem together with Schmidheiny's wife Vera and Rudolf Frey's wife. The three men made an excursion to Chekka to inspect the extensions to the Lebanese factory. They then returned to Jerusalem, from where they planned to travel back to Cairo.

On 15 March they boarded a plane operated by the Egyptian airline *Misr Airworks*, a twin-engined De Havilland Dragon. Besides Schmidheiny senior and junior, on board the aircraft were Rudolf Frey, a British colonial officer, and an unknown civilian. Near El Arish in the Sinai Desert the plane rapidly lost speed and height in a violent squall, went into a dive and smashed to pieces on the ground. Ernst Schmidheiny senior, Rudolf Frey and the unknown civilian died

instantly in the massive impact. Ernst Schmidheiny junior and the colonial officer were slightly injured; they managed to stop a train travelling through the desert towards Cairo and summon help. The pilot of the plane survived the crash, but died in hospital in Cairo. According to oriental custom, the corpses of the two Swiss industrialists were embalmed and transported to their native country by sea and rail. Ernst Schmidheiny's mortal remains were interred on 6 April in Balgach cemetery in the presence of a crowd numbering thousands of people.

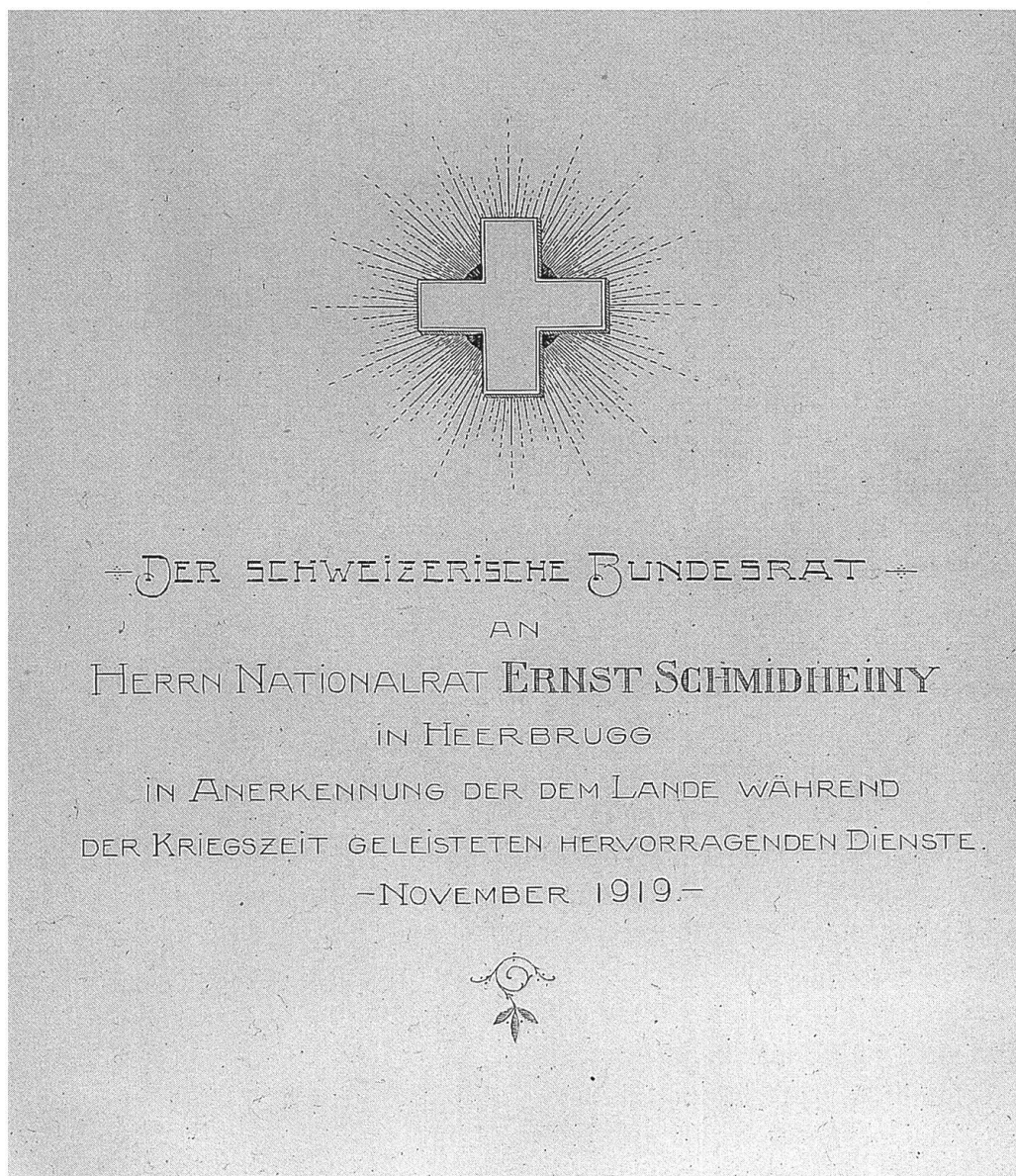
His work survived him, as did numerous charitable foundations connected with his name and activities. In 1905, shortly after his father's death, he and his brother set up the *Jacob Schmidheiny'scher Weihnachtsfonds*, which was endowed with 20,000 francs for Christmas presents for the poor of Balgach, whatever their religion or nationality. In 1914 he became president of the *Anstalt Oberfeld in Marbach* for the education of less gifted children – a position which he occupied for two decades. In particular, he was responsible for the construction of a new agricultural building. He secretly donated the necessary sum, wishing to remain anonymous. After the establishment of an organization for the care of tuberculosis sufferers, the *Mittelrheintalische Tuberkulosefürsorgestelle*, in 1925, Ernst Schmidheiny assumed the chairmanship of this institution as well, and one year later he and his brother established a foundation to fight tuberculosis. In 1926, on Ernst and Vera Schmidheiny's 30th wedding anniversary, a donation of 150,000 francs laid the foundation for a welfare fund for the aged of the parish of Balgach. And after his death, his wife Vera donated the money for the building of

the holiday home «*Rhintalerhus*» in Wildhaus in the Toggenburg area for children from the Rhine valley who were in need of a holiday; it was opened in 1942.

However, the financial worries which threatened to overwhelm Ernst Schmidheiny in the thirties also lived on after his death. The burden of the accumulated debts fell on the two sons; «My brother and I were faced overnight with huge responsibilities», wrote Max Schmidheiny in 1976. The lines which contain these words bear the title «Memories of bleak years».

## Chronology

- 1871** 1 April: birth of Ernst Schmidheiny I
- 1893** Trainee in a Swiss firm in Turin (cheese wholesalers)
- 1894** Trainee with the Kuster banking house in Turin
- 1895** Return to Heerbrugg from a stay in England
- 1896** 10 October: marriage to Vera Kuster of Altstätten (born 1877), daughter of the banker Anton Kuster-Schläpfer
- 1897** 10 December: daughter Vera Lydia («Verina») is born
- 1900** 12 December: daughter Marie Luise («Lilly») is born
- 1902** 16 July: first son Ernst II is born
- 1904** 8 August: Ernst Schmidheiny initiates the formation of the electricity company *Elektrische Kraftversorgung Bodensee-Thurtal*
- 1905** 18 February: death of his father Jacob Schmidheiny I; the firm *Jacob Schmidheiny und Söhne* is renamed *Jacob Schmidheiny's Söhne* – together with his brother Jacob, Ernst Schmidheiny I establishes the brick and tile works *Dampfziegelei Heurieth* – he is elected to the St. Gallen cantonal parliament (remaining a member until



To thank him for his services as head of the Barter Office and trade agreement negotiator during the First World War, in November 1919 the Federal Council presented Ernst Schmidheiny with an enormous silver tray 77 cm (31 inches) long.

- 1918); in November Schmidheiny and other members of parliament sign a motion in favour of the exploitation of the water power resources in the canton of St. Gallen
- 1906** 14 September: Ernst Schmidheiny forms *Rheintalische Cementfabrik Rüthi AG Flums* together with Anton Dufour of Rheineck and Heinrich Spoerri-Jakob of Flums – formation of *Schweizerische Cement-Industrie-Gesellschaft Ennenda (SCI)*
- 1907** Ernst Schmidheiny forms *Cementröhrenfabrik Rheineck* with Anton Dufour
- 1908** 3 April: second son Max is born
- 1910** 23 October: the Swiss cement works are again united under *E.G. Portland*, with Ernst Schmidheiny I on the board
- 1911** Ernst Schmidheiny is elected to the National Council (retires in 1919)
- 1912** 15 February: formation of *Aargauische Portlandcementfabrik «Holderbank»-Wildeg*g –  
2 April: work starts on the building of the *«Holderbank»* cement works (chairman of the board of directors: Edmund Schulthess; general manager and managing director: Adolf Gygi –  
1 June: formation of *Zürcher Ziegeleien (ZZ)*; Ernst Schmidheiny becomes vice chairman of the board of directors and managing director (chairman: Rudolf Escher)
- 1913** 15 April: the *«Holderbank»* cement works goes into production –  
6 May: *«Holderbank»* joins *E.G. Portland*
- 1914** 30 September: merger of *«Holderbank»* with *Rheintalische Cementfabrik Rüthi*; the Rüthi works is closed; in 1929 a plaster factory is built on the site – Ernst Schmidheiny joins the boards of *«Holderbank»* and *Schweizerische Cement-Industrie-Gesellschaft Ennenda (SCI)* – in the same year Ernst Schmidheiny becomes vice chairman of the board of the newly formed power generation company *St. Gallisch-Appenzellische Kraftwerke AG* (until 1924)
- 1915** January: federal councillor Hoffmann appoints Ernst Schmidheiny as a negotiator for trade agreements and head of the *Barter Office*
- 1917** Ernst Schmidheiny obtains his release from his post as head of the *Barter Office*, but remains a negotiator with the foreign powers until 1918
- 1918** 15 May: A sub-committee of the Neutrality Commission of the National Council reports on the *«Schmidheiny affair»* and clears Ernst Schmidheiny of all blame
- 1919** Ernst Schmidheiny retires from the National Council – he becomes managing director of *SCI*
- 1920** Ernst Schmidheiny and Jean Baer acquire a majority shareholding in *Schweizerische Eternit-Werke AG Niederurnen*; the chairman of the board is Ernst Schmidheiny
- 1921** On Ernst Schmidheiny's initiative, a contractual association is formed between *Portland-Cementfabrik Laufen*, *Cement- und Kalkfabriken R. Vigier AG*, and *Aargauische Portlandcementfabrik «Holderbank»* – Ernst

Schmidheiny becomes chairman of *Aargauische Portlandcementfabrik «Holderbank»*

- 1922** *Société Suisse de Ciment Portland SA Neuchâtel* engages «Holderbank» as «consultants» to build and commission its works at Beaumont-sur-Oise near Paris; beginning of engineering and construction activities
- 1923** December: conversion of *Schweizerische Eternit-Werke AG Niederurnen* into a holding company named *Amiantus AG*; formation of the manufacturing company *Eternit AG Niederurnen* – Ernst Schmidheiny joins the board of *Gips-Union AG Zürich*
- 1924** Acquisition of an interest in *Verkaufsaktiengesellschaft Heinrich Wild's geodätischer Instrumente in Heerbrugg* (formed in 1923) – acquisition by *Amiantus AG* of an interest in *Cimenteries & Briqueteries Réunies SA Anvers* – *Holzindustrie AG (HIAG) St. Margrethen* is established under Ernst Schmidheiny's chairmanship
- 1925** Purchase by «Holderbank» of a majority shareholding in *Ciments d'Obourg SA* – acquisition of an interest in *Ciments d'Origny* in France – further investments in Germany and Egypt – Ernst Schmidheiny retires as vice chairman of the board of *Zürcher Ziegeleien* – work starts on the office building at Talstrasse 83 in Zürich
- 1926** Formation of *Société Egyptienne de Ciment Portland Tourah-Le Caire* – acquisition by «Holderbank» of an interest in *Eerste Nederlandsche Cement Industrie (ENCI) Maastricht* (founded by *Cimenteries*

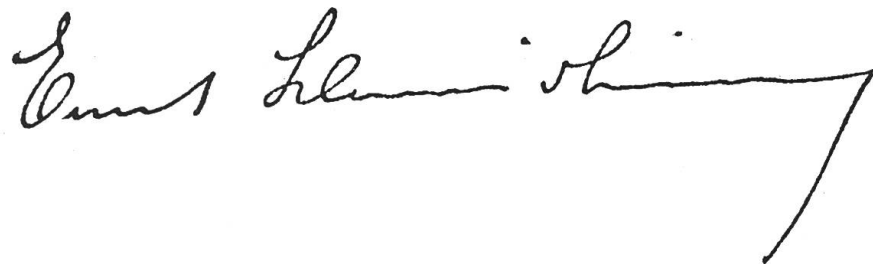


& *Briqueteries Réunies SA*) with Ernst Schmidheiny as chairman of the board

- 1927** Construction of the Tourah-Le Caire cement works, designed by Rudolf Frey; Ernst Schmidheiny becomes chairman of the board; the plant goes into production in 1929
- 1928** Formation of *Cementwerke AG Glarus* – formation of *Deutsche Asbestzement AG Berlin* under Ernst Schmidheiny's direction
- 1928–29** New works in Maastricht under Ernst Schmidheiny's direction
- 1929** Formation of *Internationale Asbestzement AG (SAIAC)* on Ernst Schmidheiny's initiative and under his leadership – acquisition of an interest in *Ciments de Chalkis Portland Artificiels SA* in Greece
- 1930** 29 July: conversion of *Aargauische Portlandcementfabrik «Holderbank»* into «Holderbank» *Financière Glarus (HOFI)* and formation of the

*A memorial tablet to Ernst Schmidheiny made for the Heerbrugg parents, teachers and pupils association in 1935.*

- manufacturing companies  
*Cementfabrik «Holderbank»-  
 Wildegg AG (CFH)* and  
*Cement- und Kalkfabrik  
 Unterterzen AG*; the companies  
 are headed by Ernst Schmid-  
 heiny
- 1933** 25 April: visit of King Fuad I  
 of Egypt to the Tourah-Le  
 Caire works with Ernst  
 Schmidheiny – *Société Egypti-  
 enne de Ciment Portland Tou-  
 rah-Le Caire* takes control of  
*Société des Ciments Libanais  
 Chekka*
- 1935** 15 March; death of Ernst  
 Schmidheiny and Rudolf Frey  
 (chairman of *E.G. Portland*) in  
 an air crash near El Arish in the  
 Sinai Desert



Ernst Schmidheiny

*Jacob Schmidheiny II*  
1875–1955



# Jacob Schmidheiny II (1875-1955)

## Brickmaking, optics and mechanical engineering

Born on 21 June 1875, Jacob Schmidheiny II was repeatedly teased throughout his life that he had come into the world on the longest day of the year. His 70th birthday was no exception. At a ceremony on that day, when the Federal Institute of Technology (ETH) conferred an honorary doctorate on him, the rector of the day, Professor Franz Tank, lauded Jacob Schmidheiny as «a sunny child of Fortune» who had journeyed through life «under the sign ... of prolonged daylight and extended working hours».

Good luck and work, a fortunate family background, combined with diligence and ability, with entrepreneurial daring and personal tenacity, with a thirst for action but also a sense of social responsibility – these were to be the qualities that would mark Jacob Schmidheiny's activities for eighty years. This is why the fine words «sunny child of Fortune» do not tell the whole story, as he himself wrote in a memoir of 1948: «In this way I came to like work, and this pleasure in work and in taking a certain risk remained with me all my life. And seeing that I not only enjoyed work myself, but also realized that there were many others who did likewise, I tried all ways to create work and hence opportunities for earning a living. That is about all that I have to say about my work, although I cannot deny that good fortune never completely left me in the lurch, which is not to say that I did not lose my way from time to time.»

Good fortune: for Jacob and his older brother Ernst it consisted ini-

tially of the inheritance passed down from their father – a piece of luck which for the moment, of course, they were hardly in a position to fully enjoy. After primary school in Balgach and secondary school in Berneck Jacob Schmidheiny attended the St. Gallen cantonal school. But he had to leave after two years because the construction and brickmaking industry was currently going through a serious crisis, and the young highschool student's help was needed in his father's business. On foot and by bicycle he went round builders and authorities instructed to see if he could not inject new life into abandoned construction projects – as he himself put it, an excellent way «to cut one's teeth». Only then was he in a position to continue his formal education: one and a half years of commercial college in Neuchâtel to brush up his French, an apprenticeship in Bühler's brickworks office in Constance, followed by another spell at the cantonal school in St. Gallen, where in 1895 he passed his high school leaving examination. Finally, he spent four years studying engineering science at the ETH in Zurich, graduating in 1899 as a qualified civil engineer. «The rest of that year», as he himself noted, «was spent catching up on the military service I had missed out and staying in Florence to learn some Italian.» In the end all this added up to a complete education – no small achievement, considering the financial woes that plagued father Jacob at that time. Meanwhile on the domestic front at Heerbrugg a «strict but kind mother» saw to it that son

Jacob «remained in harness and did not slack in his efforts».

### **With 1 HP from St. Gallen to Heerbrugg**

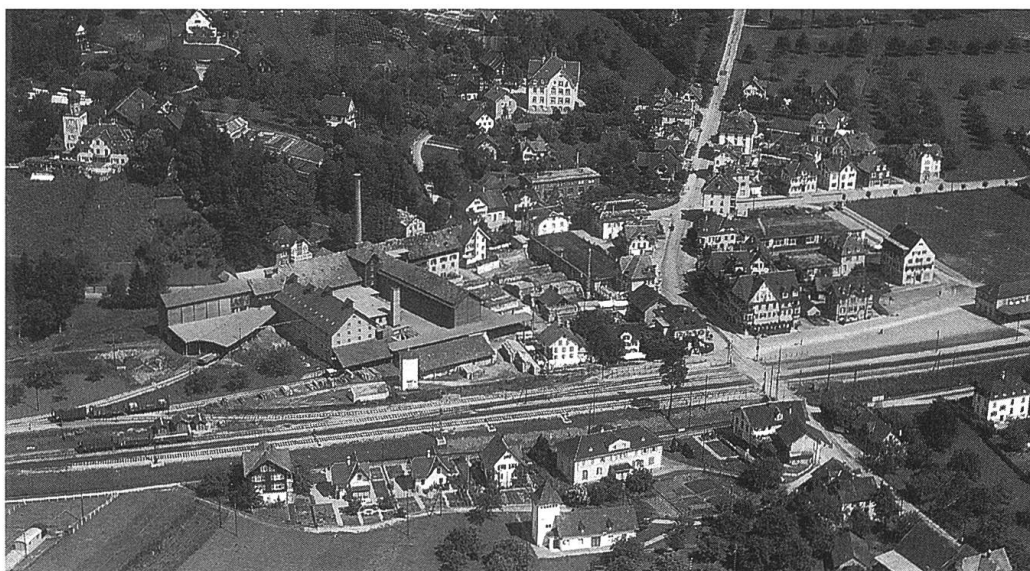
Jacob Schmidheiny could really have joined his father's brick and tile-making business in 1900. But for the time being he preferred to do something practical. He was taken on by the Geneva-based firm of Chappuis as general foreman in charge of the weir and canal at Lausanne's *Forces Motrices du Rhône* in Evionnaz. In the summer of 1901 he was promoted there to site supervisor. Shortly afterwards the *Société Franco-Suisse pour l'Industrie Electrique* in Geneva engaged him to work at the *Derivazione del Tirino* in Bussi (Abruzzi Mountains), where he independently supervised on behalf of the *VOLTA Società Meridionale di Elettricità* the construction of a power station from the cutting of the first turf to the moment the station came on stream. During building operations he had under him a workforce of 1500 Italians, with whom, it seems, he enjoyed a relationship of the utmost mutual trust – he already knew the Italians from his father's brickworks, finding them a congenial people.

In 1902 Jacob Schmidheiny returned home to the Rhine Valley but



*Fanny Schmidheiny-Alder 1881–1967*

did not sever his links with St. Gallen, as he later noted. For he found there his «devoted companion through life», Fanny Alder from Speicher, whom he apparently visited coming from Heerbrugg on more than one occasion. «The train connection from the cantonal capital to «our neck of the woods» was just as bad then as it is now», he noted in a memoir of 1948, «and so I journeyed backwards and forwards with my 1 HP vehicle, a horse, or sometimes by bicycle, or even on foot, travelling through the night from St. Gallen back to Heerbrugg to be at work again at dawn.» In April 1904 he married Fanny. Their first daughter, Helen, was born in



*Heerbrugg 1933*



*The first firm's nameplate of «J. Schmidheiny & Co.», after Jacob Schmidheiny II had become sole partner with unlimited liability of the company in 1907*

1905, a son, Peter, followed three years later, and in 1911 and 1917 they had two more daughters, Marianne and Ursula.

Meanwhile, in Heerbrugg, Jacob and his father, together with Jacob's brother Ernst, had established the company of *Jacob Schmidheiny und Söhne*, which in 1905, after the death of Jacob senior was transformed into *Jacob Schmidheiny's Söhne*. Now the whole responsibility for the family concern fell to these two representatives of the younger generation, moreover at a time when the construction industry as a whole was in poor shape. There were a number of factories they had to oversee: Heerbrugg, Bruggwald by St. Gallen, Istighofen and Oberriet, and everywhere the problems were the same. The quality of the products needed improving, production costs had to be driven down, and there was room for improvement in what we today call «marketing». This meant increasing manufacturing efficiency, designing new products, improving existing ones, and bringing sales,

which was often totally chaotic, into line with a streamlined manufacturing process.

#### **Managing director of Zürcher Ziegeleien**

For a while the two brothers set about the daunting task together. Although by 1907 Jacob Schmidheiny had become sole «partner» with unlimited liability in the Heerbrugg firm (meanwhile renamed *Jacob Schmidheiny & Co.*), Ernst Schmidheiny nevertheless continued to be involved with the brickmaking industry. Both were convinced that it would only be possible to create a new – and badly needed – commercial organization and to modernize manufacturing facilities by pooling resources, by merging a number of major factories, or even by some actual cartellization. Since 1906 both brothers had sat together on the board of directors of the steam brickworks *Dampfziegelei Heurieth*, which amalgamated a year later with the Albishof factory to form the *Albishof-Heurieth* brickworks. This in turn

# Protokoll

des Verwaltungsrathes der Zürcher Ziegeleien

Sitzung

Freitag 14. Juni 1912

Veranstaltung 4/4 Uhr

Traktanden:

Wahlprüfung des Verwaltungsrathes

Genehmigung des Statutenentwurfes & der Statuten

Organisation des Verwaltungsrathes (Aufstellung von Nebenstellen etc.)

Präsident: Herr Prof. Escher, Schmidheiny, Baur, Gröblich & Wüstmann. Herr Hans Bloch hat sich von Besetzung mitentschieden. Der Vorsitz führt Herr Prof. Escher. Zu Beginn die Mitglieder des Verwaltungsrathes zum ersten Sitzung willkommen.

Zur Tagesordnung wurden die Nebenstellen am 3. Juni genehmigt. Zum Protokollführer: Herr Prof. Escher

„ 1. Nebenstellen: Herr Nationalrat Schmidheiny

„ 2. Statuten des Verwaltungsrathes: Herr Nationalrat Schmidheiny & Herr Escher

Zum Protokollführer: Herr Hans Bloch

Der Statutenentwurf wird zur Beurteilung genehmigt & die Statuten werden mit folgenden wesentlichen Änderungen verabschiedet:

Art 3 das Wort „besteht“ wird durch „besteht“ ersetzt.

„ 3. Ziffer 2. das Wort „besteht“ wird durch „besteht“ ersetzt.

„ 13. Artikel wird: Die oberste Verwaltung ist im Namen des Aufsichtsrathes. Der Verwaltungsrath legt ihn dem Aufsichtsrath, die Aufsichtsrath, die Bildung & seine Mitglieder über die Verwaltung des Geschäftes gebildet war. Die gebildete Vorlage wird dem Aufsichtsrath, Mindestens 14 Tage vorher gegen Einsicht zur Verfügung gestellt. Die Aufsichtsrath entscheidet etc. unverändert.

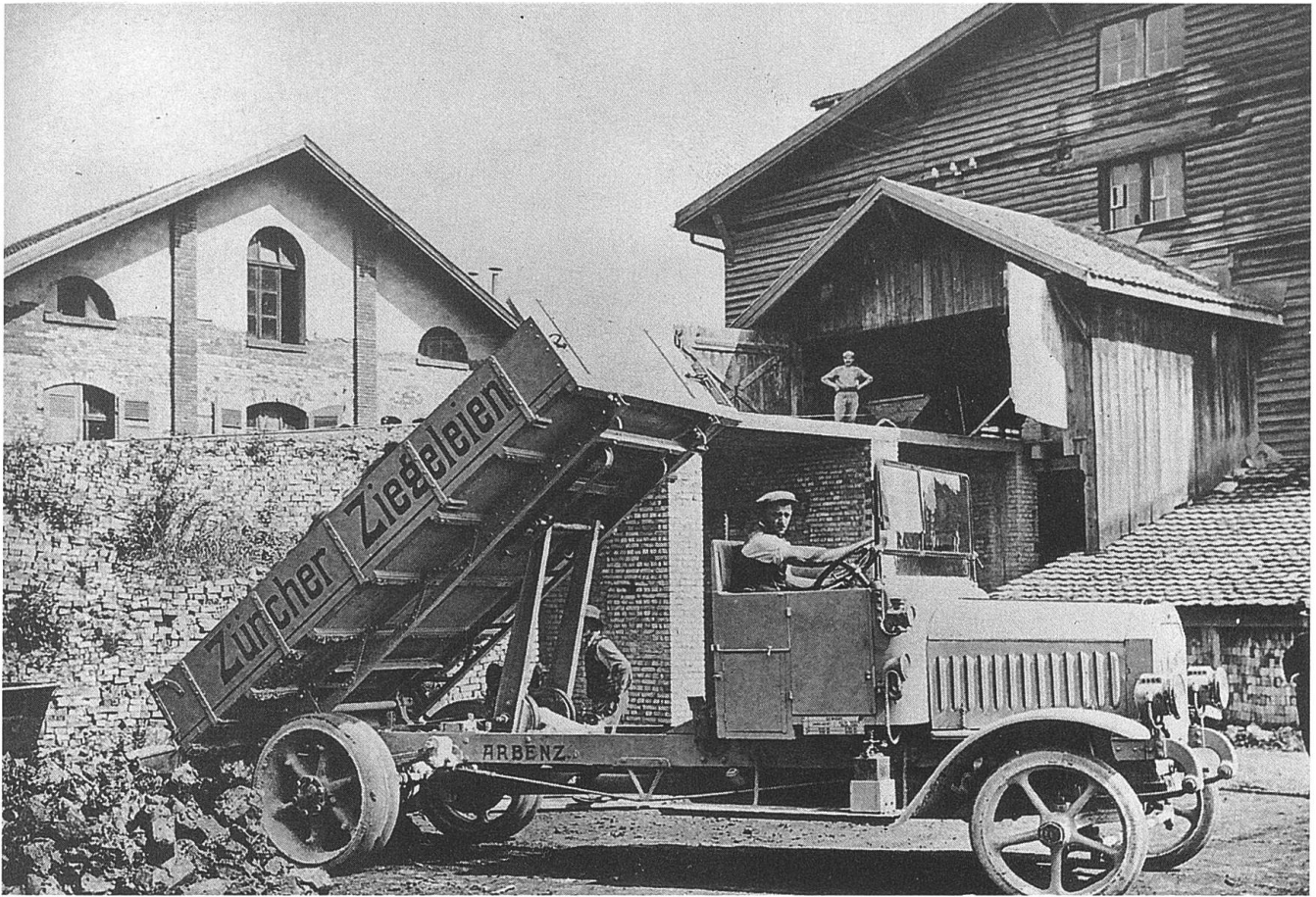
Art 19 Ziffer 2: Es wird über die Verhandlungen & Geschäfts des Verwaltungsrathes ein Protokoll geführt & dem Aufsichtsrath & dem Protokollführer vorgelegt.

The minutes of the first board meeting of Zürcher Ziegeleien on 14 June 1912, following the merger of the two brickworks Mechanische Backsteinfabrik Zürich and Albishof-Heurieth. «Present: Prof. Escher, Mr Schmidheiny, Mr Baur, Dr Schmid & Mr Süsstrunk... Prof. Escher is in the chair.»

merged in 1912 with the brickmaking factory *Mechanische Backsteinfabrik Zürich*, which had been in production since 1861, and which in those days with its two plants in Binz and Tiergarten was regarded as the most productive brickworks in Switzerland.

The new company adopted the name of *Zürcher Ziegeleien (ZZ)*.

For a time Ernst Schmidheiny, the former manager of *Albishof-Heurieth*, played a leading part in the new company. He was appointed deputy chairman and managing director. When he



*Transporting Zürcher Ziegeleien clay around 1930*

stepped down in 1925, his brother, «Colonel Jacob Schmidheiny, likewise major shareholder», was nominated as his successor on the board, a move which caused some consternation during a plenary session of the general meeting. The minutes record that the then chairman, Hermann Keller-Malzacher, evidently put on the defensive, was compelled to point out that «Colonel Jacob Schmidheiny (...) is admittedly (...) one of our greatest competitors», but that «a very cordial relationship exists between *Zürcher Ziegeleien* and the Schmidheiny company». Also «Colonel Schmidheiny has a profound knowledge of syndicates, which could prove highly advantageous in future negotiations». However, the chairman evidently did not manage completely to win round the general meeting, for in a secret ballot Jacob Schmidheiny managed to obtain only 2420 votes out of a total of 3015.

But in any case he had now been

elected to the board. A year later Jacob Schmidheiny, following the death of the incumbent chairman and managing director, Hermann Keller-Malzacher, himself became the new managing director. As a result the reins of *Zürcher Ziegeleien* fell into his hands, and he remained on the board of directors from 1933 until his death in 1955, also serving as chairman. Between 1932 and 1941 he incorporated into the Zurich group his eastern Swiss brickworks *Ostschweizerische Ziegeleien*, which included the Istighofen, Bruggwald (near St. Gallen), Oberriet and Heerbrugg plants. The corporate structure of the first three factories was broken up, although Istighofen in the canton of Thurgau remained until the present day the premier production site. Always a traditional firm, *J. Schmidheiny & Co.* continued to bear the old name, serving as a sales company for eastern Switzerland. In a curriculum vitae penned in 1941 Jacob Schmidheiny recorded with evident

satisfaction: «Gradually I managed to assume control of (...) the entire group of 10 brickmaking factories. I had arrived at the goal which I had set my sights on from the very beginning.»

### **The brickmakers' main worries**

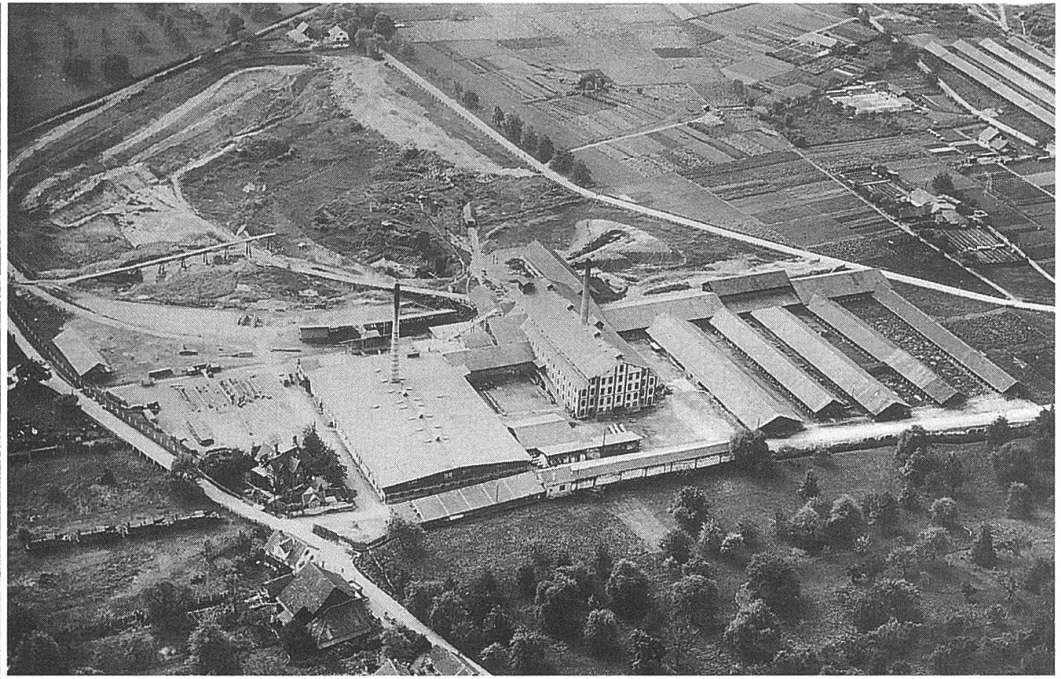
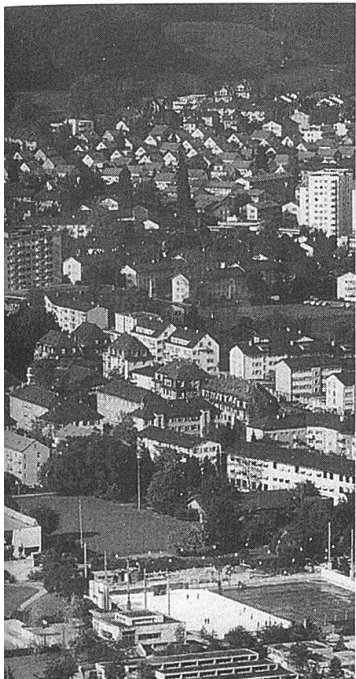
Under Jacob Schmidheiny's leadership *Zürcher Ziegeleien* burgeoned into Switzerland's largest brick and tilemaking concern – despite all the adversities of the time, which in some years frustrated any pick-up in this sector. In the late twenties and early thirties the so-called «new way of building» caused problems for the brickmakers. In the field of structural engineering concrete was being used more and more, and houses were being increasingly built with flat roofs. Both factors threatened the sale of bricks and tiles, all the more so when the cement producers for their part in the so-called «cement war» sought to flood the market with cheaper products, in the process making competition much more ruthlessly.

In those days *Zürcher Ziegeleien* were by no means content merely to take defensive action. Under Schmidheiny's chairmanship individual firms were merged, leading to an even more rigorous rationalization of all operations and enabling some plants to specialize in certain products. The strategy also made it easier to reconcile the discrepancies in sales between the urban and rural markets, as well as between the different regional markets.

As a civil engineer, Jacob Schmidheiny saw that new and improved products had to be produced both to do



*The Zürcher Ziegeleien Tiergarten site in the 1930s (small picture top right) and before its closure in 1974. Triemli Hospital in the background.*





*Workers at the Zürcher Ziegeleien plant knew it was time for their four o'clock break when they heard the bell (cast in 1887).*

justice to the changing construction methods of the modern age and to be able to function more economically. But this could not come about without modernizing the plant at the brickworks and without improving transportation.

With these objectives in mind the Heerbrugg industrialist risked innovations which would require a very bold hand on his part if they were ever to come about. But he went on to oversee the development of products which today have become common features in the brick and tilemaking industry.

As early as 1913 the firm of *J. Schmidheiny & Co.* in Heerbrugg owned the contractual rights for the manufacture and sale of the Pfeifer hollow ceiling block. In the estimation of engineer Schmidheiny, statically perfect reinforced concrete hollow block ceilings were suitable for replacing the conventional type of ceiling construction used hitherto – an insight with far-reaching implications. It enabled brickmakers to gain a foothold in the reinforced concrete method of building. Nowadays in the German-speaking parts of Switzerland hollow block ceilings are hardly made any more, but in other countries (such as France or Italy) they are still in use.

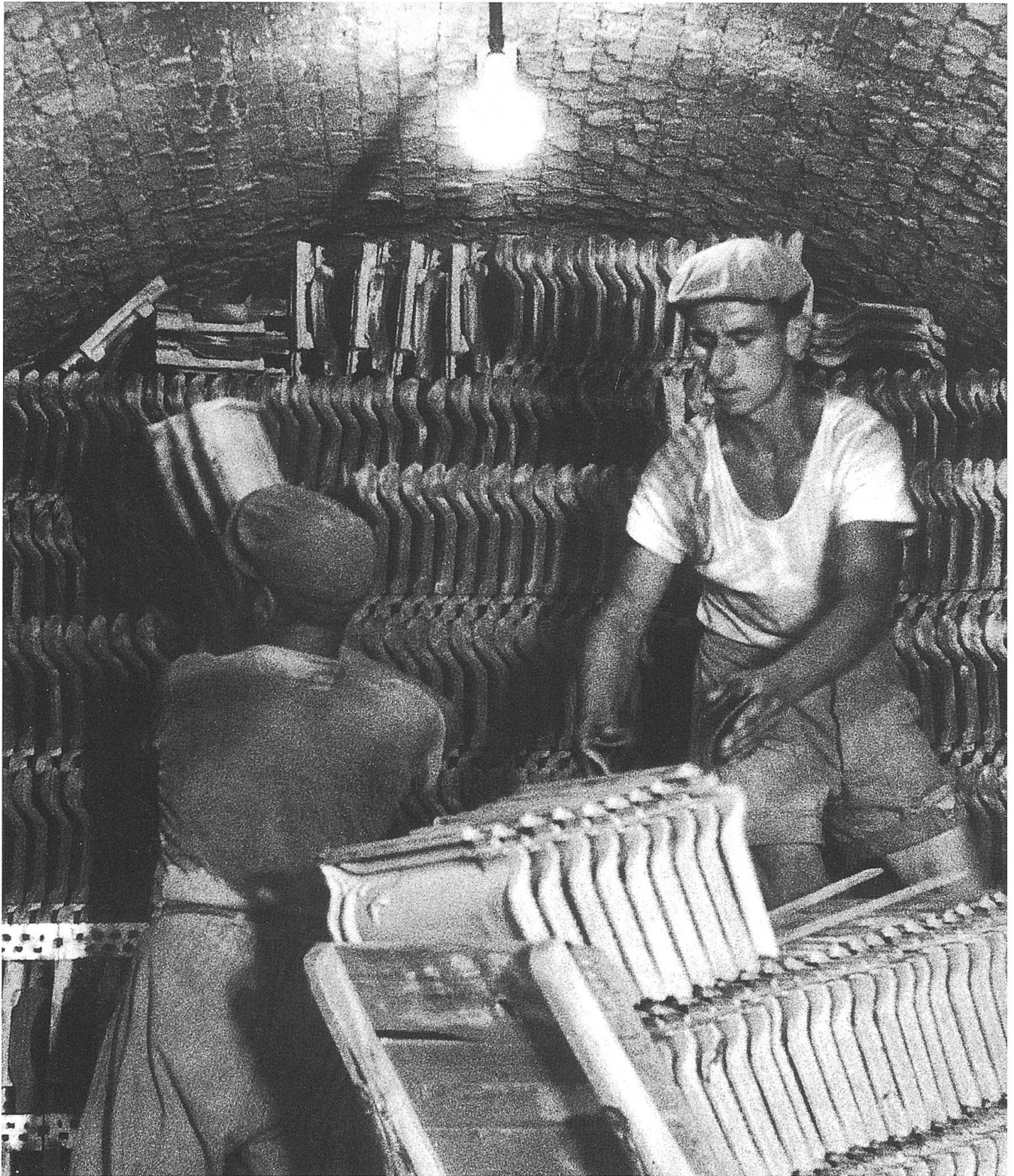
Of greater significance for the future – and also for *Zürcher Ziegeleien* – was another innovation deriving from the firm of *J. Schmidheiny & Co.* On 1 October 1925 the company filed at the Federal Patent Office an application for a patent for a large-size brick made of fired clay, which, though of simple design, offered particular advantages over the conventional brick in terms of its dimensions, its insulating property and the quite special arrangement of its hollow spaces. Patented on 1 September 1926, the product became known as the «Schmidheiny brick» or «insulating

brick». The principle of the utmost importance behind it was to prove it, thus remaining in use up to this day.

Other innovations followed. Thus, for example, in the thirties *Zürcher Ziegeleien* and *J. Schmidheiny & Co.* launched on the market a porous cellular earthenware block which was capable of being sawn and nailed – not, strictly speaking, an «invention», but rather a product deriving from the practical technical application of facts already known. As an addition to the product range, it more than proved its worth, being taken up by numerous Swiss brickworks.

#### **«The finest clay pit in Switzerland»**

Besides rationalizing the means of production, Jacob Schmidheiny, as the man in charge of a large number of brickmaking concerns, had to address the problem of obtaining the necessary raw materials, that is to say, productive clay pits. In 1930 he arranged for the purchase of a large area in Schinznach, which – so the minutes of the general meeting for that year run – «both in the chairman's own estimation and in the expert opinion of the geologists represents the finest workable clay pit in Switzerland still available». In doing so Jacob Schmidheiny secured for *Zürcher Ziegeleien* a major clay deposit, which, «virtually inexhaustible», has fulfilled its promise right up to the present. In those days it was all the more important to acquire new sources of raw materials because a number of the pits crucial to *Zürcher Ziegeleien* lay in city territory, that is to say, in areas in which quarrying threatened to run into ever increasing difficulties. It was imperative to look, plan and act for the future in order to safeguard the combined brickmaking plants and hence the jobs of the workers and staff.



The task was not always easy. *Zürcher Ziegeleien* naturally got into a particularly precarious situation during the economic slump of the thirties. In order not to exacerbate the severe unemployment, an attempt was made to keep the business going for as long as possible, although this could not be done without a drastic cutback in production with its inevitable knock-on

effect on jobs. The devaluation of the franc in 1936 saw the start of a recovery in the building market, which, however, only three years later with the outbreak of the Second World War once again ground to a halt. All over again *Zürcher Ziegeleien* and with them their boss had to contend with an almost hopeless crisis situation. The mobilizations robbed some of the fac-

*Stacking tiles in the kiln in sweltering heat (Tiergarten tile and brickworks, Zurich)*

tories of their workforces, while rationing had a severe impact on fuel supplies. However, as soon as the war was over, building activity recovered remarkably quickly, only to find the various companies having to adapt themselves anew to altered conditions on the construction market. Modern building methods made ever increasing demands of materials, necessitating the use of new construction materials. This is why *Zürcher Ziegeleien* progressively moved into neighbouring areas of building materials production – the prelude to a diversification which was to become more pronounced under Jacob Schmidheiny's successors, his son Peter and his grandson Jacob III.

#### **Not bricks and tiles, but oil and fat**

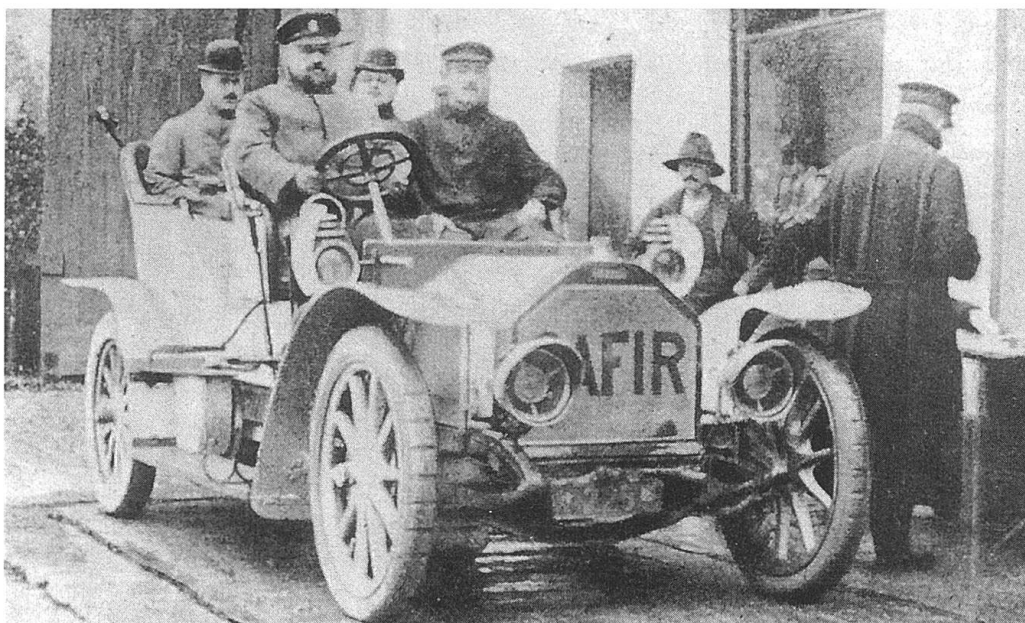
Like his brother Ernst, Jacob Schmidheiny never ceased to be concerned about creating or safeguarding jobs – as the example of Horn on Lake Constance was to show. The clay deposits from which the Schmidheiny brickworks there obtained its supplies had already been exhausted before the First World War. It made no economic sense to procure the raw material from further afield, and so closure of the factory seemed inevitable.

To spare blue-collar and white collar-workers alike from redundancy, Schmidheiny searched for some alternative source of employment. He found it with the help of a number of enterprising foreign businessmen. In 1917 the SAIS oil and fat works was founded in Horn. SAIS (*Società Anonima Italo-Svizzera*) was for Switzerland a completely new industry, which not only provided jobs, but also became of paramount importance in the wartime economy. Before 1914 Switzerland had procured its fats, insofar as its requirements were not met by

home-produced butter or animal fats, from abroad. But the war spelled an end to overseas imports. However, it seemed that the country could be supplied with oleaginous fruit via Italy. The upshot was the association Schmidheiny entered into with industrialists from Switzerland's southerly neighbour. In those years Horn was considered a particularly suitable location for the works because it was assumed that sooner or later the Rhine would be made navigable as far as Lake Constance and fats could then be transported on Rhine barges directly from Rotterdam to Horn. Such future prospects were not to materialize. However, the fact that dreams of this nature were entertained shows just how firmly people believed, notwithstanding the war, in the economic future. For a time Schmidheiny was himself a managing director of SAIS and in 1928 chairman of the board.

#### **The brief adventure with the Safir motorcar**

Bold intentions and confidence in the future marked the beginning of another enterprise Jacob Schmidheiny engaged in – this time, however, with no great success. In November 1906, together with the Rheineck district councillor Anton Dufour, Adolf Saurer from Arbon, Alfred and Adolf Stoffel, likewise from Arbon, and Heinrich Spoerry-Jakob from Flums, he participated in the founding of the Rheineck *Schweizerische Automobil-fabrik*, shortened to *SAFIR Co. Ltd.* The object of the undertaking, according to the «company log» of the day, was «to operate a factory for the manufacture of motorcars and engines of all kinds, as well as to engage in general mechanical engineering and all activities associated with this corporate aim». The workshops were located in Zurich's Hardstrasse, where the



In 1906 Jacob Schmidheiny II helped found the Swiss Automobile Factory (SAFIR) in Rheineck. One model, produced in 1907, with Anton Dufour, a co-founder of the company, at the wheel, took part in a hill climb, but only managed to take 12th place. Motorcar production itself was a failure.

Maag gear-wheel factory subsequently became established. Company chairman was Dufour, with Jacob Schmidheiny as deputy chairman. The *Safir* car, an open, right-hand drive four-seater, seems to have been a technical success. The vehicle was widely acclaimed and won a hill climb against a car from the Saurer factory. By all accounts the Saurer chairman, one of the co-founders of *SAFIR*, was greatly displeased by the victory, and relations between the two rival firms turned rather sour. In 1907 a *Safir* car with Anton Dufour at the wheel came 12th in a race at the Faucille track near Geneva. In the same year a lorry with the *Safir* marque was exhibited at the Paris motorshow. Yet economic fortune did not smile on the concern, and in November 1910 the commercial register recorded the words «In liquidation», to be followed three years later by the laconic entry: «Company defunct».

#### **From the horse-drawn tram to the trolleybus**

Both *SAFIR* and *SAIS* reflected the fact that Jacob Schmidheiny's entrepreneurial ambitions were not by a long chalk confined to the building materials industry. Since the begin-

ning of his professional activities he had, like his brother Ernst, expanded his range of interests. And like Ernst he understood that the key to all industrial prosperity in his home region, the St. Gallen Rhine Valley, lay in a sound energy industry and modern transport facilities. In 1897 Jacob Schmidheiny senior had set up the *Altstätten-Berneck Electric Tramway* – an enterprise that was admittedly badly needed, but which caused its initiators more worry than joy. In 1905 the sons inherited this legacy, and Jacob II came to chair the tramway's board. Just what a burden he had taken on he knew very well from the start. As a student at the ETH, he had once made calculations for his father as to the viability of the tramway, estimating that if its running costs were to be covered, each carriage would have to transport at least two passengers. But precisely these two passengers, as Jacob Schmidheiny had to see for himself, by and large failed to materialize. «Hopes of assured operation proved false», he admitted fifty years later in a chairman's report.

For a while all attempts at lowering the deficit seemed doomed to failure. A small electricity generating station had been set up in Altstätten as early as 1896 with the intention of supply-

ing not only the small towns with sufficient domestic current for about 600 lights, but also the tramway. But even this complementary business could not cover the costs, and so the company stood on the brink of ruin. It looked as though the concern would have to be sold with a loss of 50 percent of the share capital. However, thanks to Jacob Schmidheiny it never came to that. At the suggestion of Jacob senior, the firm of *J. Schmidheiny & Söhne* in 1903 filed an application to be granted the concession to exploit three terraced falls on the Rhine Valley inland canal. Although the St. Gallen government did not comply with the request, after a protracted delay it declared itself willing to carry out the building itself – on one condition, that sales of the resulting energy must be guaranteed, that is to say, an annual income of 120,000 francs would have to be raised for interest and amortization. Jacob Schmidheiny himself worked flat out, as he later testified: «In the

towns and villages of the Rhine Valley I personally collected subscriptions, I signed the appropriate agreements in the name of *J. Schmidheiny & Co.*, and I saw to it that the company assigned the rights flowing to it from the subscription agreements to the *Altstätten-Berneck Electric Tramway*.»

In this way the tramway became the general lessee of the inland canal power plant. As such it had to set up the secondary networks in the Rhine Valley communities from Au to Oberriet. But just how the money needed for this would be raised remained an open question. The banks showed themselves to be distinctly lukewarm vis-à-vis the hard-pressed tramway. At Jacob Schmidheiny's instigation the tram company raised a bond loan of 500,000 francs, placing it with the future suppliers of the electric motors. In the end it turned out that the banks had been unjustified in their lack of enthusiasm. The Rhine Valley thereafter underwent an unexpected boom.

*In 1936, under chairman Jacob Schmidheiny II, the tramway company Rheintalische Strassenbahnen (later called the Rheintalische Verkehrsbetriebe) decided to convert the core Altstätten-Rathaus-Heerbrugg-Berneck line to trackless trolleybus operation. The first trolleybuses began running in September 1940 (here in front of Berneck town hall). In 1977 they were replaced by conventional buses.*



The demand for power grew rapidly, and the tramway was such a success that in 1907, for the first time in ten lean years, a dividend could be paid.

Three years later the recently founded *Elektrizitätswerke des Kantons St. Gallen* (St. Gallen Cantonal Electricity Works) came on stream, the forerunner of the future *St. Gallisch-Appenzellische Kraftwerke* (St. Gallen-Appenzell Electricity Works), on whose board committee Jacob Schmidheiny would himself one day sit. In 1910 the St. Gallen company requested the sale of the secondary networks in the Rhine Valley. In the absence of these and without the related energy sales the tramway would have been doomed. A deal was therefore put forward to the electricity works: for 1.8 million francs they could take over everything – the local grid plus the tramway. But the power company did not want to know anything about the high-risk tram. Instead they angled to acquire just the secondary networks, in the end paying for them the considerably higher price of 2.1 million francs...

In 1914 Jacob Schmidheiny considered extending the tramway. The idea was to supplement the existing Altstätten–Berneck line with a branch running from Heerbrugg via Widnau to Diepoldsau. In spite of the outbreak of the world war, the general meeting resolved in December of the same year to go ahead with the project. The clinching consideration behind this adventurous decision was an undertaking made by the board chairman, together with the company's general manager, to take on the construction at a fixed price – regardless of looming wartime inflation. It was an enormous risk, which Jacob Schmidheiny could only take because by way of precaution he had secured at his own peril supplies of track and sleeper materials.

Such foresight meant that it was possible to build the new line in record time. In 1915 the old Heerbrugg–Diepoldsau mailcoach was discontinued, to be replaced by the electric tramway. At the same time the company was renamed *Rheintalische Strassenbahnen* (Rhine Valley Tramways).

But that was not the end of the problems. The depression of the thirties left the business in such dire straits that liquidation was seriously contemplated. On top of that it transpired that the technical infrastructure of the core Altstätten–Berneck line needed overhauling. The search was on for some more modern, commercially viable system. The answer lay in turning to the trackless, electrically powered trolleybus. But the move was not without a snag of its own. The new scheme could not be got up and running without refurbishing the roads in question. Finally agreement was reached. The communities affected were induced on the basis of cantonal highways legislation to contribute towards the road improvements and to make voluntary annual payments towards the transport costs. In September 1940 – once again in wartime – the first country trolleybuses started running.

Later the Heerbrugg–Diepoldsau line was also converted to bus operation. Then two new lines were added: Diepoldsau–Hohenems in Austria and Au–Berneck–Walzenhausen. *The Rheintalische Verkehrsbetriebe* (Rhine Valley Passenger Transport Services), as the company came to be known, never developed into a profitable operation. But it played an invaluable role in the region's economy. Jacob Schmidheiny was its chairman until his death, after which the office passed to his nephew Max, who presided until 1970, in turn transferring the chairmanship to his cousin Peter Schmidheiny.



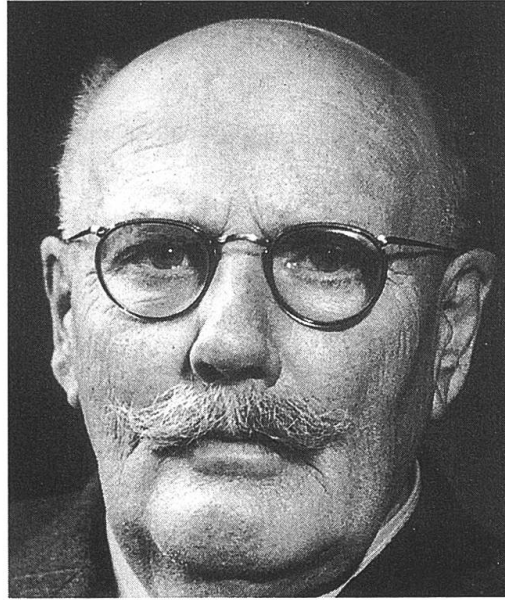
*The inventor and design engineer Heinrich Wild, chief engineer of the Geodesic Instruments Department of Zeiss in Jena, who in 1921, with co-founders Robert Helbling and Jacob Schmidheiny, established the precision engineering and optical workshop «Heinrich Wild, Werkstätte für Feinmechanik und Optik» in Heerbrugg. He quit the company in 1932.*

### **A new beginning with Wild-Heerbrugg**

Just how much the interests of civil engineer Jacob Schmidheiny roved in fields outside his own building sector was now to be demonstrated in another development with even more far-reaching implications. In the early twenties the Swiss Heinrich Wild, in those days chief engineer in the Geodesic Department at Zeiss of Jena, contemplated transferring his sphere of activities. The brilliant inventor and design engineer no longer found the wrecked Germany of the post-war period a congenial environment. So he planned to move to Switzerland, to an area which seemed to have some knowledge of his specialism and

whose workforce was to some extent already trained for the manufacture of his revolutionary surveying equipment. What could have been more natural for him than to think of a watchmaking region?

In the event things turned out very differently. As a major in the artillery, Wild had got to know during a spell of military service on the Gotthard fortifications Dr. Robert Helbling, a specialist surveyor who had his own office in Flums. Linked through their common technical interests, the two remained in touch not just professionally but also socially. From his student days at the ETH, Helbling in turn knew Jacob Schmidheiny. The connection bore fruit. The new sphere of Wild's activities, so it seemed to the inventor, was thus already half pre-determined. It would have to be a region in which there were entrepreneurs with financial clout and an appetite for risk who were seeking to promote the development of new industries. An area which recommended itself was the St. Gallen Rhine Valley, which at the time, too heavily dependent on embroidery, was severely depressed. Some 77 per cent of all its industrial workers were employed in the textile sector – at a time when embroidery exports had slumped from 400 million francs a year to 20 million. «During the war embroidery had made money», Max Schmidheiny later said, «but then came the great crash; the embroidery gentlemen were living beyond their means.» In 1971, in an anniversary speech, the same Max Schmidheiny put it somewhat more diplomatically, but no less to the point: «The catastrophic decline in the twenties of the once mighty embroidery industry put thousands out of work and consumed the modest prosperity of earlier times, transforming it into poverty and misery. This was the time

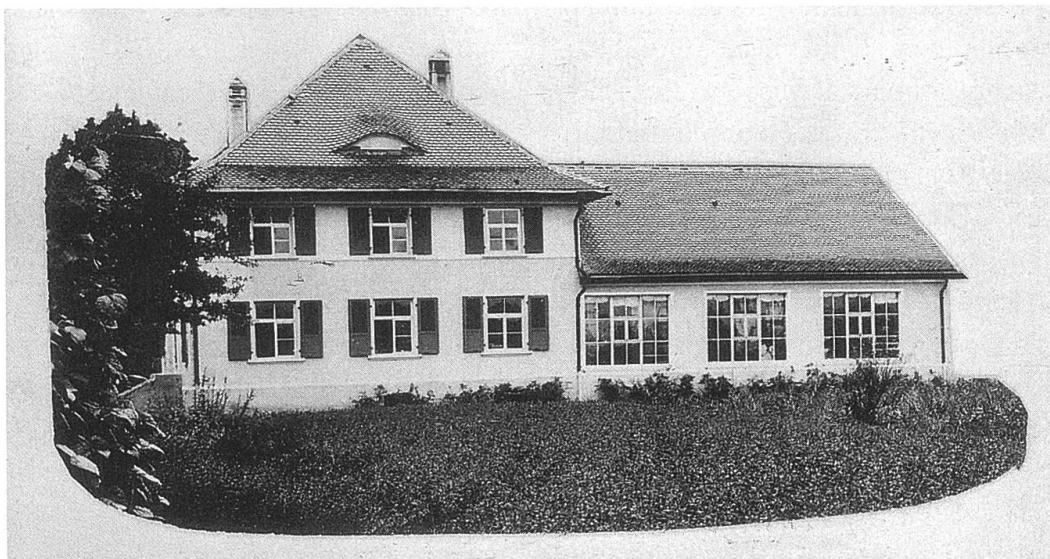
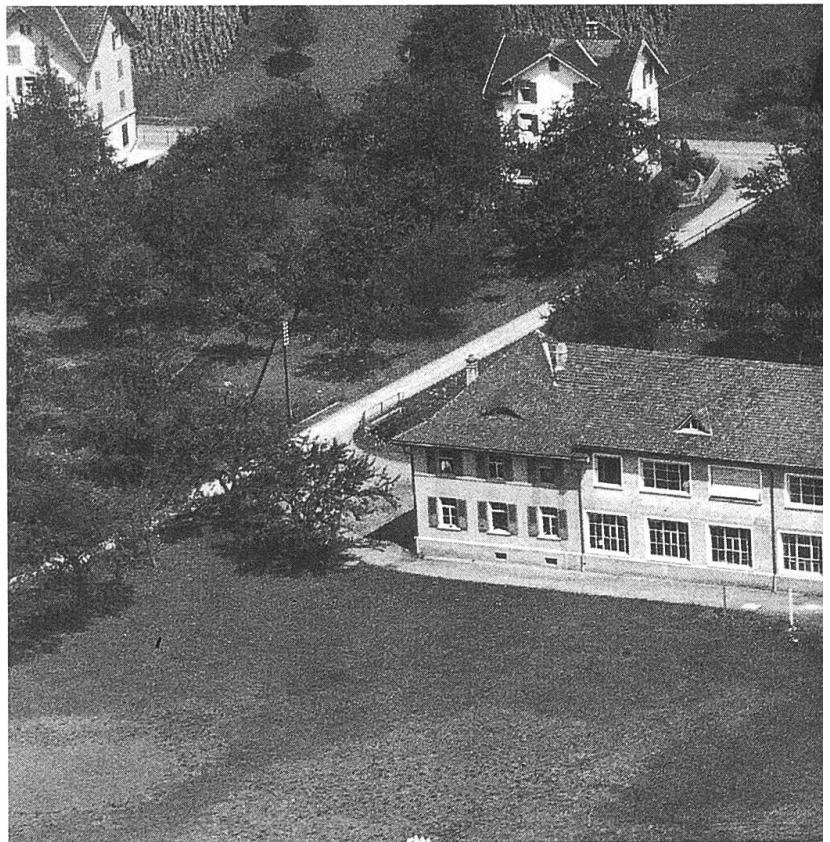


*Heinrich Wild*

*Robert Helbling, owner of a surveyor's office in Flums, was approached in 1920 by Heinrich Wild in connection with the construction of «autographic equipment». Helbling in turn contacted Jacob Schmidheiny to win him over for a new joint undertaking in the Rhine Valley.*

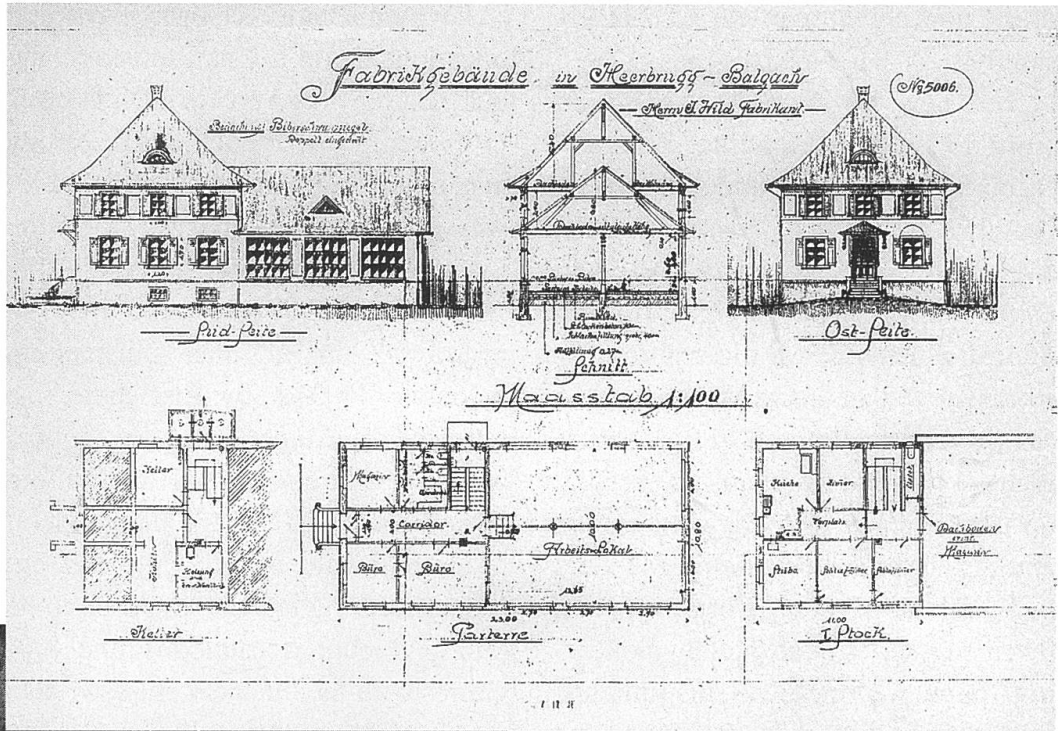
## **The development of Wild-Heerbrugg**

*The Wild-Heerbrugg factory building around 1930 – enlarged and modernized*



*Wild-Heerbrugg started out in 1921–1922 in a building of such unassuming proportions that it looked more like a villa than a factory.*

Plan of the first modest factory building for «Mr. J. Wild, manufacturer» with planning permit dated 11 June 1921



Wild-Leitz, 1990

of the new beginning with *Wild-Heerbrugg*.»

The new beginning came on 26 April 1921, when Helbling, Wild and Jacob Schmidheiny founded the Heerbrugg company of *Heinrich Wild, Werkstätte für Feinmechanik und Optik* – a precision engineering and optical workshop. An old embroidery works served as the workshop, with a floor space totalling all of 150 square metres. But the problems of starting up the company were far greater than any of the three enterprising founders had ever anticipated. Certainly Wild invented a series of absolutely pioneering photogrammetrical instruments, whose function was to facilitate land surveying and map making on the basis of photographs. But the way from the ingenious idea to the efficiently manufactured and fully functional instrument was a long and costly one. Numerous teething troubles had to be eliminated, and as the trio were seeking to develop a completely new branch of industry, in the first instance they had to rely on importing expertise from abroad. In addition, for a long time there was no certain domestic market the company could count on.

Trading in the early years, therefore, were a struggle for survival. The start-up capital rapidly disappeared, necessitating frequent injections of new cash. With a view to more easily raising the funds needed, the geodesic instrument sales company *Verkaufsaktiengesellschaft Heinrich Wild's geodätischer Instrumente* was founded on 1 May 1923. A year later Jacob's brother Ernst was called on for help. He would happily have participated in Wild from the beginning, but at first he was given the cold shoulder, and «only when the enterprise threatened to breathe its last», as Max Schmidheiny put it, they called him in like a knight in shining armour.

For a time, however, even his capital injections could not bail the company out. Just how hard up the business was is shown by the money owed. In one instance an amount of tax of Fr. 125.– was disputed, while on 9 May 1925 the St. Gallen «taxman» requested the *Wild Heerbrugg* sales company to «forthwith remit the outstanding amount of Fr. 312.50». Elsewhere, in a letter of 11 August 1925 the optical company threatened a defaulting customer with an automatic debit order to the tune of fully Fr. 15.50, but with disarming naïvety enclosed in its dunning letter a catalogue and brochures with the innocent enquiry: «Do you not require surveying or plotting equipment?... We look forward to receiving your orders.» Evidently, in those days the art of marketing was still in its infancy.

In the autumn of 1925 the indefatigable but unworldly inventor Wild met up with the business partner he was looking for. This was the 42-year old textile industrialist Albert J. Schmidheini, a man, who with an «i» at the end of his name was not actually a member of the Schmidheiny family, but who through marriage became related to it – he wedded one of Jacob's sisters-in-law. To begin with he was made a director with extensive powers of attorney, rising to the rank of general manager in 1949. In 1956 he was awarded an honorary doctorate by the ETH. At the beginning of his work in Heerbrugg he too had to contend for many years with the adversities of the time. Although the photogrammetrical products of *Wild AG* were slowly acclaimed worldwide, sales proved as problematic as ever. The new technology pioneered by Heerbrugg remained largely unknown. In many places it could only be launched against the odds. As a result corporate activity – as the future chairman Max



*Albert Schmidheini, brother-in-law of Jacob Schmidheiny II, joined Wild-Heerbrugg in 1925, becoming a director and later, 1949 to 1958, general manager.*

Schmidheiny stated in a review in 1979 – was «slowed down and held up by one disaster after another. (...) There was no shortage of labour, but first the workforce had to be carefully trained for their jobs in special company-owned skill centres. In the first two decades the shareholders were badly affected by the burden of risks. In the critical years when the company was being built up they had to sustain major financial losses and write off substantial capital sums».

The year 1932 saw the inventor Wild fall out with his partners in Heerbrugg, and he angrily departed from the firm. The company, however, continued to bear his name, and Jacob Schmidheiny remained as before chairman. But from 1933 onwards it

was ultimately Max Schmidheiny, the son of Jacob's brother, who as deputy chairman had the last say. He acquired Wild's shares, which, together with those that had come to him from his father Ernst, left him as the majority shareholder.

### **Escher Wyss: a company with an eventful history**

For Jacob Schmidheiny it must have been a relief to be rid of the burden of *Wild AG*. But in 1936, at the age of 61, he embarked on another adventure with far-reaching implications. He took on the difficult task of trying to turn around the crisis-ridden *Escher Wyss* engineering works in Zurich. He considered that if he could provide it with an assured future, he would be saving one of Switzerland's greatest industrial assets.

At the time the company had behind it an eventful history of over a hundred years. Its founder was Hans Caspar Escher, the son of the silk manufacturer Johann Escher-von Muralt vom Felsenhof, a half brother of the famous Hans Conrad Escher von der Linth, builder of the Linth canal. Born in 1775, Hans Caspar studied architecture in Italy. On his return to Switzerland in 1797 he discovered in St. Gallen Monastery the first spinning machine constructed in the country. The machine fascinated him, and he conceived the idea of himself building a mechanical cotton spinning mill. Although innumerable prejudices stood in the way of the project, in political and economic terms it was not a bad time for founding such a mill in Switzerland. The economic conflict between Paris and London, and in particular Napoleon's continental trade embargo on English goods, resulted in a sharply increased demand for yarns and spinning machines in non-British countries.

In 1803 Hans Caspar Escher set up his own machine in the cellar of his parents' Zurich home. On 31 January 1805 the lower house of Zurich's cantonal parliament granted him permission to construct a mechanical spinning mill with engineering shops. The company's inaugural meeting took place on 10 March of the same year. It was given the name of *Escher Wyss*, because the banker Salomon Wyss not only injected money into the company, but also provided it with legal assistance. In a hereditary tenancy the «Neumühle» or «New Mill» (where today the Kaspar Escher House stands) was acquired to take advantage of the water-power on hand, which was needed to drive the machines.

In 1826 Hans Caspar Escher's son, Albert, joined the company, becoming a partner six years later and expanding the business. Concentrating especially on exports, he started manufacturing steam-driven engines and steamships, as well as the first water turbines. Soon the space available was no longer adequate, with the result that in 1856 the «Stampfenbach» site was acquired. A year later *Escher Wyss* also began building locomotives.

But in 1845 Albert Escher was taken seriously ill while away travelling, dying unexpectedly in Manchester. After his death and also that of his father in 1859 there was nobody in the family with the same business bent to replace them. «The direct successors of the deceased founders were not cut out for the task and thus confined themselves more to the administrative side of the business.» This is what we read in the commemorative publication «150 years of *Escher Wyss*», which in 1955 with remarkable candour also became part of the company's weak points.

From 1888 on, under the chairmanship of engineer Heinrich Zoelly,



*Hans Caspar Escher,  
1775–1859, founder of  
Escher Wyss*

the firm enjoyed a new period of prosperity. In order to commercially exploit the steam turbines he had developed, Zoelly set up international syndicates, making *Escher Wyss* one of the most important suppliers of steam turbines in the world. Financially, however, the new boss was less successful. His economic consolidation of the company could not keep up with its technological prowess. One thing he favoured was moving the manufacturing facilities from their «Neumühle» site to the location they now occupy in the «Hard» site – undoubtedly a wise decision, for it liberated the firm from the cramped conditions it had had to put up with for decades. Yet the funds deriving from the sale of Stampfenbach land and property had to go largely to paying off partners. In order to build the new factory, the company was forced to rely on borrowed capital. In addition, for the time being effective control passed into German hands. With help from his own family and a number of banks, Zoelly managed to restore the works to Swiss ownership, although it was not possible to completely buy out the German interests until the First World War.

### **From the heights to the depths**

The consequences of neglecting self-financing and relying too heavily on outside money were grave. *Escher Wyss* products continued to enjoy a worldwide reputation, but their edge over the goods of rival companies dwindled. Through research and development the competition had meanwhile made considerable headway. The company fell from its position of preeminence. This was compounded by the disastrous effect the Great Depression of the thirties had on the firm, which exported 75 to 80 per cent of its products. Factory losses mounted up, causing the management weighed down with financial problems, to resort more and more to bank credit and bond loans. Liquidation looked inevitable.

After many painful twists and turns rescue came just in time. For a while the situation looked as dismal as ever. In December 1931 a new engineering company was set up under the name of *Escher Wyss Maschinenfabriken AG*. The main stakeholders were *Eidgenössische Bank Zürich* and *Basler Handelsbank*. They took the factory, which belonged to the creditor company of the old firm, on lease. The directors Victor Frey and Hans Guyer attempted to consolidate the company's position on the world market through better organizational management, but the losses continued. Factory workers and staff felt increasingly insecure. In those days of social upheaval malicious pamphlets appeared, directed against *Escher Wyss*. On 6 February 1932 the Swiss metalworkers' journal «Schweizer Metallarbeiter» reported that «the entire workforce» was to be sacked, rumouring that the whole business was due for closure. On 16 November 1935 the staff newspaper («Der Neumüller») for the employees of *Escher Wyss Ltd.*, carried the sub-

title: «Appears once in the year of the fourth pay cut».

Managerial attempts to reach some understanding with «friendly» engineering works, to work together with them or even amalgamate, also came to little. On the contrary, such overtures met stubborn resistance on the part of the competitors, who would not have been sorry to see *Escher Wyss* go to the wall. In this predicament the two directors turned to the Zurich city president Emil Klöti and the Canton of Zurich's director of economic affairs Rudolf Streuli, who entered into negotiations with the creditor group and the banks involved. The problems were daunting. The recovery programme was once again bitterly resisted by other companies in the engineering industry as well as by some trade associations and political groups.

### **In the words of Zurich's city president Emil Klöti «a stroke of luck»**

Finally, in spite of everything, agreement was reached on 21 November 1935. The city of Zurich would take over from the liquidation assets *Escher Wyss*' entire real estate, including the factory workshops, leasing it back to the company with right of purchase. In an aid agreement the city and canton of Zurich undertook further to underwrite for a period of three years a loss guarantee of an amount not exceeding 500,000 francs a year. The agreements, however, constituted no more than a breathing space. In the long term it was unthinkable that the public sector should jointly shoulder so much responsibility for an engineering sector business that exported 80 per cent of its output and in addition owned subsidiary companies abroad. The management realized that there would have to be massive injections of private funds to replace their inventory

of machine tools neglected in the crisis years and to recommence and intensify research. It was a question of finding a new interest group of industrialists.

The initiative was taken by a company director of the time, Victor Frey. He got in touch with his army friend Colonel Jacob Schmidheiny. The latter proved interested. The world-famous engineering successes of the *Escher Wyss* concern motivated him, as he later wrote in a curriculum vitae, «to investigate the possibility of keeping it going. In my opinion the disappearance of the company would have meant a great loss for the workers and staff employed there, as well as for the city of Zurich and the economy of the country as a whole».

In 1936 he decided to acquire the company shares owned by the creditor banks, something he did with the mechanical engineer Dr. Hans Gygi, the son of the former «*Holderbank*» director Adolf Gygi. Jacob Schmidheiny made his involvement conditional on one thing, that his son Peter, 28 years old at the time, could also join the company, likewise with a financial interest, and there spread his professional wings. The following year the deal was complete. In the decidedly thin annual company report for 1937 the event would have passed unnoticed, except that in the list of board members for that year the names of «J. Schmidheiny, Heerbrugg», chairman, and «Dr. H. Gygi», deputy chairman, – both managing directors – made their debut. This meant that Jacob Schmidheiny was in effect the owner of *Escher Wyss* – «a stroke of luck», as city president Emil Klöti later wrote in his local historical recollections with a quiet sigh of relief. «For it was this enterprising and energetic businessman who understood how to successfully overcome

the considerable difficulties that initially lay in the way of a lasting rehabilitation and expansion of the company.»

There had been no lack of warnings. Jacob Schmidheiny himself knew very well from the outset what to expect, as Hans Gygi, deputy chairman of the board of directors at the time, observed in 1945, on the occasion of the industrialist's 70th birthday: «When you came to *Escher Wyss*, you brought with you the experience of your age and the enterprise of youth. You knew very well the gravity of the task you were then taking on and made no secret of it from me either. Taking over an engineering works such as *Escher Wyss*, which relies so heavily on exports, is no sinecure, and quite especially not after the blood-letting that *Escher Wyss* had gone through at that time. What you could expect of the company for the foreseeable future was not brilliant financial transactions, but just hard work and risk. But it was precisely this which was in keeping with your temperament, and which also corresponded to your understanding of the entrepreneur, making *Escher Wyss* attractive to you. Early on in your career you had already taken an interest in starting up new industries and generating jobs. But it had been your concern to bring into being industries that did not compete with existing ones but instead created new work. Participation in enterprises that were already on a sound footing was not in accord with your notion of the business of the entrepreneur.» Jacob Schmidheiny himself said as much in those dark days of the thirties. When he was trying to drum up financial support for *Escher Wyss*, one of the country's best-known financiers advised him in all honesty not to touch the company, which would only lose him money. Schmidheiny's reply

was characteristic: the brick and tile works were running like clockwork, and they presented no real challenges. But it was precisely the problems piling up at *Escher Wyss* which appealed to him. He had never, since his earliest days, been afraid to take a risk. When a business friend once proudly reminded him that he had not sustained losses for years, Schmidheiny answered with a bored air that he was «not the sort of person who hangs up his coat and lives off the interest on his capital».

1937 was the beginning of the «Schmidheiny era» at *Escher Wyss*. It was possible to wind up the aid agreement with the canton and city of Zurich with retroactive effect to 1936, and the representatives of the authorities withdrew from the company's board of directors at their own request. Then in 1941 the firm was in a position to buy back the concern from the city of Zurich for 2 million francs plus handling fees. With that *Escher Wyss* once again stood on its own two feet.

### **Modernization despite war and crisis**

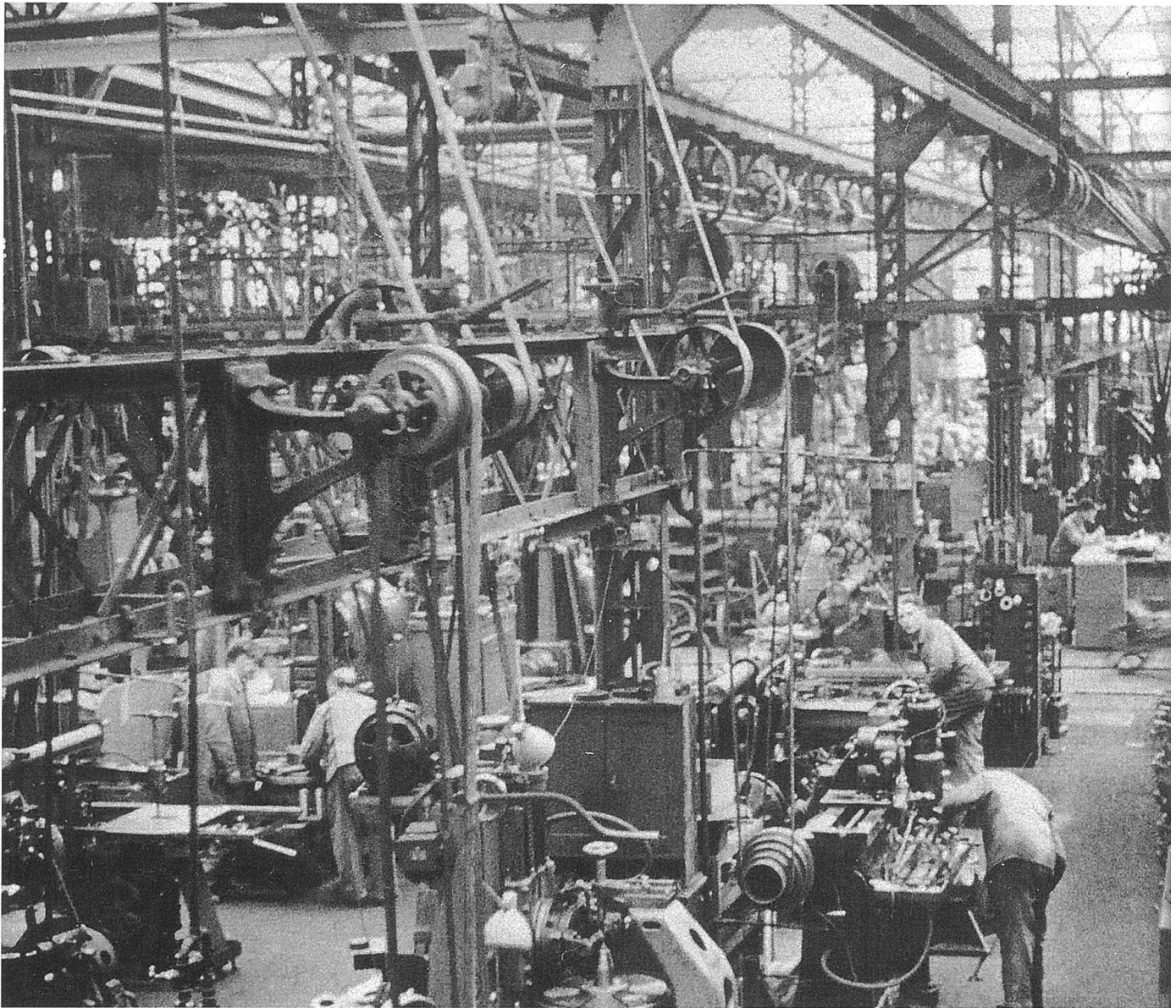
However, it was no easy matter to turn *Escher Wyss* around. In many areas of the business Jacob Schmidheiny was obliged in the words of one of his former colleagues «to start again from scratch». Quite particularly at this juncture the task was a doubly tricky one. What with the devaluation of the franc, general currency instability in the surrounding countries, the Spanish Civil War, the fateful Munich Agreement, the rise of Nazism, and generally the stormclouds that were gathering on the eve of the Second World War – Europe was in the grip of a political upheaval which seriously hampered all commercial activity. Traditional customers from the «Old World» were only able

to make absolutely vital new purchases. Major overseas companies were disinclined to place further orders in Europe. For a firm like *Escher Wyss*, which largely depended on exports for its existence, all this was a severe handicap.

The outbreak of the Second World War further aggravated the situation both for Swiss industry as a whole and, of course, for *Escher Wyss* in particular. The mobilization of the army deprived the company of part of its workforce. Imports of raw materials and coal became problematic, while exports involved mountains of red tape. The transportation of goods and payment transactions suffered from both the Allies' economic blockade and the German counterblockade. Switzerland was truly cut off from the outside world.

It was all the more remarkable, therefore, that under Jacob Schmidheiny's leadership *Escher Wyss* managed during these years and despite all the obstacles to record something of a boom, even contriving to sustain a large part of its exports. The nature of the company's products naturally favoured this. The annual business report for the year 1941 records, for example, an increased demand for water turbines. This was the result of many countries progressively switching over during the war to generating their power not with coal, which was in short supply, but by hydroelectric means.

The firm *Escher Wyss* fared relatively well even during difficult years not least because of a consistent corporate policy, which even in times of war and crisis was not to be deterred from resolutely updating completely obsolete factories and plants. Individual branches of the business and some workshops were expanded, while on the «Hard» site a welfare centre (plan-



ned as early as the last year of the war) as well as a new office block were built.

Continuous modernization and timely efforts to improve productivity meant that *Escher Wyss* was well placed to profit for the boom of the postwar years. In the late forties and early fifties it landed major orders in the face of stiff international competition. As he had done in the brick-making and optical engineering industries, Jacob Schmidheiny now stressed the paramount importance of technical and scientific research in the mechanical engineering sector, knowing full well that only by constantly pushing back the frontiers of research could the company's competitiveness

and hence its whole export business be guaranteed. «For some enterprises technological research is a necessity», Schmidheiny wrote. «Research means coming up with new and better things. But these new and better things are only of interest to the industrialist if they are also open to commercial exploitation. (...) The function of research, therefore, is first and foremost to provide work. (...) Technological research is not an end in itself, but is there to serve people.» The practical consequences of such an insight were that the laboratories of Escher Wyss were handsomely expanded.

In this way *Escher Wyss* managed to retain its position among the international leaders. Innovative design

*In 1937 the Escher Wyss workshops were modernized. The dangerous belt transmission drives were replaced by individual drives at each work-place.*

helped improve the quality and performance of the machines in the traditional areas of water turbine, steam turbine and paper-making mechanical engineering. And then there were new products, such as the adjustable aircraft and marine screw propeller.

A stronger parent company also benefited the foreign subsidiaries. With help from the Zurich factory both *Escher Wyss GmbH* in the German town of Ravensburg and the Italian subsidiary *De Pretto-Escher Wyss* in Schio recovered relatively quickly from the damage wreaked by the Second World War. The parent company's technical know-how flowed even further afield when *Escher Wyss* signed licence agreements with foreign firms or acquired an interest in yet other subsidiaries. As the group

was expanded, every effort was made mostly to retain for the parent factory not just the design work, but also the manufacture of complicated labour-intensive special parts. In this way *Escher Wyss* both ensured that it had work to do and retained overall control of the group despite decentralized production. In the mid-fifties, when the company was celebrating its 150th birthday, it boasted a workforce of some 10,000, of whom approximately 2700 were employed in the Zurich works. In addition there were 50 representations abroad – individual people or sales outlets – spread throughout five continents.

In 1945 the Federal Institute of Technology (ETH) acknowledged Jacob Schmidheiny's work in connection with *Escher Wyss* in a special way,

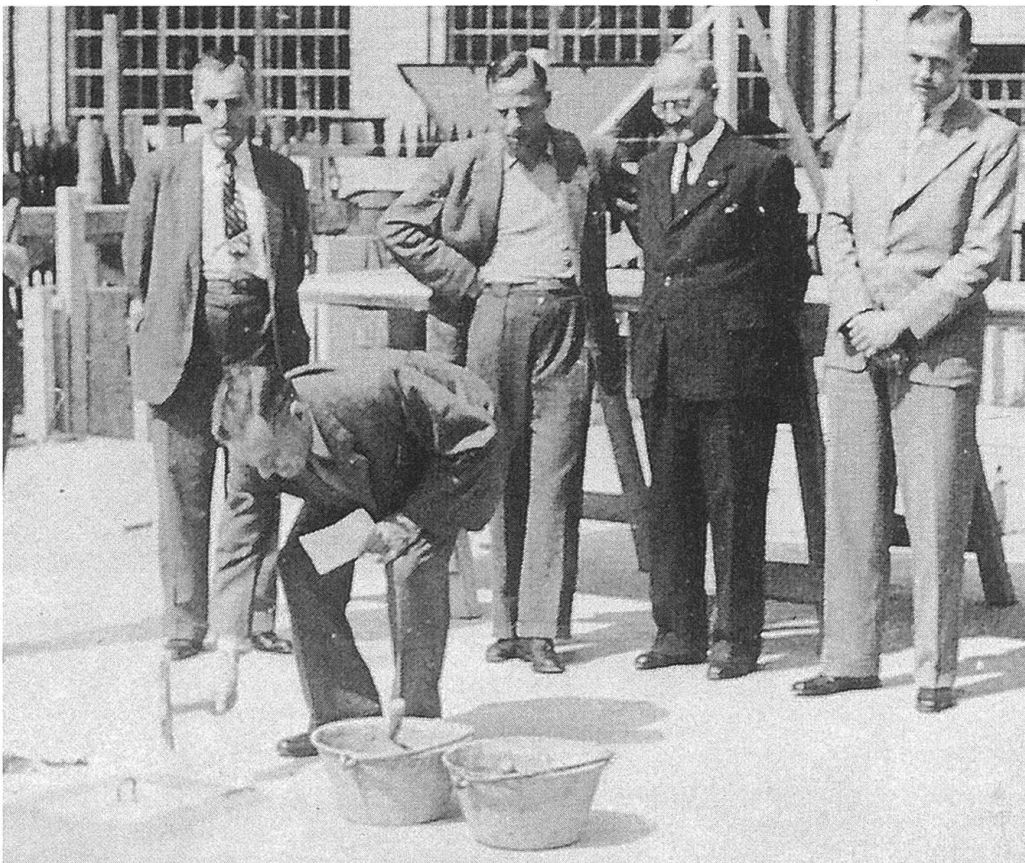




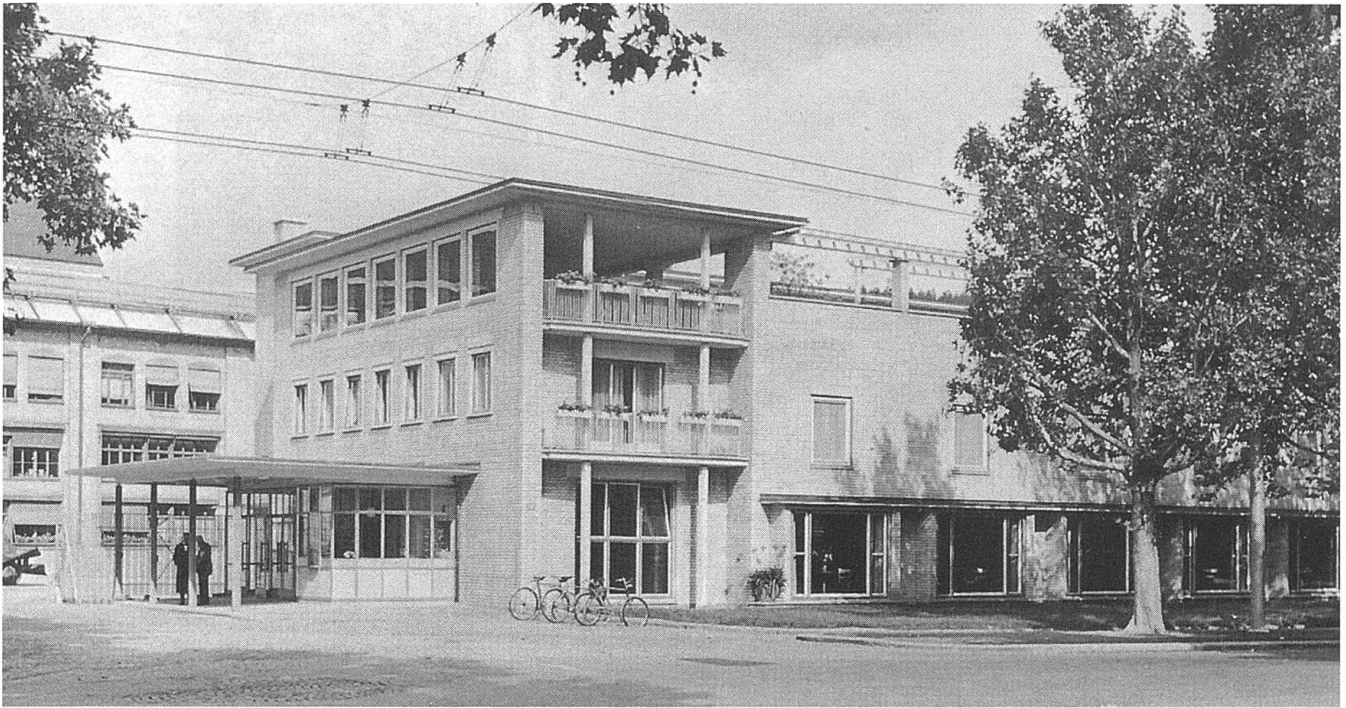
*Second World War General Henri Guisan at Escher Wyss inspecting the production of the adjustable-pitch airscrew for the Swiss airforce. He is accompanied (left) by company chairman Jacob Schmidheiny and (right) by director Victor Frey. Between the General and Frey (behind): Director Hans Guyer; far left (in the background): Dr Hans Gygi.*

as he himself later described with a show of false modesty: «On 21 June 1945 I became 70. I had settled down peacefully in Heerbrugg, expecting nothing more than that the village musicians should come and play before my house, as is the wont of old men,

when suddenly tail-coated gentlemen from the Federal Institute of Technology surprised me with one of their honorary doctorates.» Whether the honour really came as such a surprise is open to doubt. Whatever the case, it was awarded in recognition of Jacob



*Jacob Schmidheiny personally lays the foundation stone as work commences on the building of the welfare centre. He is accompanied by representatives of the workers' committee and staff association. Far right his son Peter Schmidheiny.*



*The welfare centre, officially opened in 1949*

Schmidheiny's «outstanding contribution to the promotion of Swiss mechanical engineering through his sympathetic support of the scientific and technical research and development that gave rise to new industries and new jobs».

#### **No time for «high politics»**

It was natural that a personality such as Jacob Schmidheiny should also be called upon to tackle «political» problems in the widest sense of the word. At the local level there was, he wrote, «almost no post that I have not held», from being a census official to the «phantom fireman», whose job it was in the days before the advent of telephones (his brother Ernst had also held the post) to alert the fire brigade if a fire broke out. His own notes reveal that he was further «a schools inspector, a church councillor, a district councillor, and a member of the cantonal parliament, but that still left a bit of time for the noble art of hunting». In Heerbrugg he was chairman of the board of school governors for twenty years, and for four full decades he was a member of Balgach's

Protestant church council, also acting as its chairman for a quarter of a century. Sunday he set aside as a day when fellow citizens could come and discuss their problems with him or ask his advice. This was a genuine matter of concern for him. On being re-elected to the parish council, he wrote to a friend in 1946: «I have accepted this job once again because it means more to me than just some public duty.»

For many terms of office Jacob Schmidheiny sat as a member of St. Gallen's cantonal parliament on its economic and financial commission. But he soon bowed out from «high politics». «Between 1934 and 1935 I put in a fleeting appearance at the National Council. I thought I had no time to spare for Berne. To young people today I preach the contrary, that they simply must make the time to get involved in politics.» At the time the leaders of the St. Gallen Liberals could not hide their disappointment at Schmidheiny's departure, but they were unable to undo his resignation, which he had sent to Berne by telegram.

Whether he cared to admit it or not,



as one of the country's most important captains of industry he was drawn into «high politics» in spite of his disinclination. His attitude alone to the then highly controversial question of workers' committees and staff associations showed this. Unlike many of his professional colleagues, he recognized such organizations, their legitimacy and value, from the outset. This explains his wholehearted approval of the peace agreement in the engineering and metal-working industry. «If one has grown up in the countryside in a small community and numbers fellow parishioners and old schoolmates among one's workers and staff, one quickly discovers what the latter expect of their «boss» – that they are appreciated as workers and respected as people. And the situation is no different in the towns and cities.»

Heinrich Spoerry, for many years a board director and deputy chairman of

*Zürcher Ziegeleien*, characterized the social elements in Schmidheiny's thinking and acting similarly. The industrialist always allowed himself to be guided by the principle: «If the company is doing well, the workers should be doing well too.» That is why the organization and expansion of employee insurance and medical cover at *Zürcher Ziegeleien* were very much «his work. But he also generously supported its tuberculosis care, child welfare clinic and other public welfare institutions». Schmidheiny himself once put it thus: «In each of our fellow workers we must not lose sight of the human being. Today's division of labour being what it is, there is a great danger that we see only the work and not the person behind it.»

It was in these terms that Jacob Schmidheiny viewed the relationship between employer and employee. Another of his guiding principles was:

*21 June 1945: Jacob Schmidheiny II on his 70th birthday, surrounded by his family. From left to right: Ursula, father Jacob, his wife Fanny (née Alder), Helen, Peter and Marianne.*

«A liberal economy must go hand in hand with social responsibility.» Federal councillor Walter Stampfli acknowledged in later years the «extraordinary recovery» which the firm of *Escher Wyss* had made under the Heerbrugg magnate. Tellingly he added that this remarkable success was «not least to be attributed to the modern industrialist's art of gaining his employees' trust and of getting them to see that the need to pull together is something that should be self-evident.»

### **The right man for the right job**

Jacob Schmidheiny loved giving his employees an opportunity to develop and prove themselves. He never forgot a lesson he had learned at home. «My father wanted to come to the aid of a builder (whom I considered unreliable) with a substantial sum of money. I thought that I might persuade my father out of his intention. Not mincing his words, he replied: «It may well be that I am taking a risk helping this man. But your judgement is based purely on supposition. It is not right to mistrust someone merely on the basis of supposition. If no one had once trusted and helped me, I would not have been in a position to have you trained at the Federal Institute of Technology as an engineer.»» From that time on Jacob Schmidheiny junior also retained a certain personal pleasure in taking risks. Sometimes it extended even to advancing loans to employees for experiments or acquisitions whose success or usefulness he himself viewed with scepticism. Everyone, including ordinary workers, should have the chance to learn from their mistakes.

It seemed to him that in commercial undertakings true partnership was of paramount importance, as he himself never tired of pointing out: «A boss

who makes decisions solely by virtue of his position is no true boss. Similarly, a worker who expects decisions from his boss simply because he is the superior is no fellow employee, but a true underling. Decision-making no less than the subject to be decided upon presupposes that the matter has been studied and understood» – professional know-how, as we would say today. To promote it, the Heerbrugg industrialist set up in 1952, three years before his death, a foundation, called the *Jacob Schmidheiny'scher Fonds zur Förderung der beruflichen Weiterbildung* (Jacob Schmidheiny Fund for the Promotion of Further Professional Education and Training). The fund was intended to «facilitate the professional training and to promote the further education of young people of both sexes, who both through their character and inclination could profit from this, but whose parents are financially not in a position to support such education or for whom it would constitute a very great burden in relation to their income and savings were they to try to fund such an education. The purpose of the fund extends to all spheres of activity, and is intended also for those who wish to pursue an academic or artistic career.» Application to the fund was open to any young person whose parents either lived in the Balgach area or were employed in a company associated with the benefactor – brickworks, *Wild-Heerbrugg, Escher Wyss*.

One gift always stood Jacob Schmidheiny in good stead in his relations with his employees – his renowned ability to find the right man for the right job. This did not come about without effort on his part. He spent a lot of time trying personally to get to know his employees as people, so that he could then determine whether they were suited to a particular job not just in terms of their

technical qualifications, but also temperamentally. One young man, who wanted to become his secretary and whose background, training and work experience he knew very well, he invited to a discussion with the characteristic words «Let's first see if we are compatible».

Unreliability, superficiality and indifference were an abomination for Jacob Schmidheiny, and when he was confronted by these tiresome qualities, he could become quite discomposed and abrasive. As an opponent in the business world he could be, as Konrad Auer, a long-standing board member of *Zürcher Ziegeleien*, knew from experience, «utterly intransigent if that was necessary for him to get his way. But he could also be magnanimous and fair». Or yet again ironic, as the following story shows. One day a man from Appenzell called on him, looking for a job. He was not especially cut out for manual work, the job-seeker admitted, but that made him all the better at giving orders. Schmidheiny bade him set about some job together with a second man, expressly enjoining the «Appenzeller» to work exactly like his colleague. The would-be commander naturally ignored this last injunction and began ordering the second man around with a thunderous voice – to no avail, because for the trial lesson Schmidheiny had specially got hold of... a deaf-mute.

In the matter of genuine misery, however, Jacob Schmidheiny was invariably socially enlightened. For him «welfare means neither alms-giving nor interfering in people's private affairs. We make it our concern because, if circumstances require, we want to support our company employees in both word and deed». Evidently his readiness to help in a private capacity was also great. The list of sureties which he took on out of the kindness

of his heart or which had come to him from his father was a long one. It was to shorten only in later years. His sympathy for impoverished or unfortunate people he often formulated in the saying that the poor man was not in a position to make economies.

### **Upright bearing in a colonel's uniform**

It was not just in civilian life that Jacob Schmidheiny understood how to find the right person for the right job. As a captain in the army he had once (against the regulations) promoted an able battery mechanic to lance corporal, with the recommendation that the man be sent for further training. The mechanic rose up through the ranks of the army to corps commander – his

*Jacob Schmidheiny,  
«the Colonel»*



name: Alfred Gübeli. Schmidheiny himself made it to colonel, and it was as «Colonel» that many of his fellow citizens addressed him until his dying day. By all accounts his military position meant a great deal to him. The family albums contain numerous photos of him with an upright bearing in his colonel's uniform. His final position was as artillery commander of an army corps. But he never wanted the command of a military unit. He believed that all his civilian commitments as a businessman would prevent him from devoting sufficient time and energy to the task.

It was as an army officer, incidentally, that the industrialist demonstrated his ability to think on his feet. During the First World War Major Schmidheiny, as he then was, was sitting with his staff in some remote Jura village awaiting the arrival of Army commander-in-chief General Ulrich Wille, who was to dine with them at seven that evening. Eight o'clock came, half past eight – no General in sight. It transpired that he and his entourage had had a breakdown somewhere along the line. Tired of waiting, Major Schmidheiny ordered his men to eat. They ate and cleared up – when suddenly the news came through that the General would be arriving after all in half an hour. Some of the officers in Schmidheiny's staff began making up lame excuses to present to Wille, but the Major decided otherwise: «We shall eat all over again.» New cutlery and crockery was laid out, and a second dinner followed, this time with the General, who perhaps wondered to himself why those officers over there in the Jura had such poor appetites...

#### **Chairman of the Dornier aircraft factory**

Jacob Schmidheiny's dual role as both senior officer and major indus-

trialist was to play an important part when the Thal-based *Dornier* airplane corporation (established in 1926) decided to set up an aircraft factory in Altenrhein on Lake Constance. The state, the canton and the municipalities expressed considerable interest in the project, launched in 1928, for it promised to generate numerous jobs. To start with they subsidized the construction of an airfield, a precondition for the erection of the factory. But then, naturally, they wanted managerial control of the works. At the express wish of the then head of the Federal Ministry of Defence, of the chief of the general staff and of the cantonal authorities, Colonel Jacob Schmidheiny offered his services as chairman of the factory's board of directors. In this function he officiated as an Army Ministry representative and as an intermediary for the *Ordnance Department*.

At the beginning of the Second World War the post, taken in an honorary capacity (Schmidheiny had no financial stake in the company), was to become a burden with ominous implications. The *Dornier* works, which in 1940 had meanwhile set up a branch on Emmen airfield, was financed with German money and was hence through Jacob Schmidheiny personally linked with the firm of *Escher Wyss*. The Allies immediately threatened to put the Zurich mechanical engineering factory on their blacklist. They were only to be persuaded out of this when the federal authorities gave a solemn undertaking that since September 1939 the entire output of the various *Dornier* plants had been produced exclusively for Swiss army use.

After the war Jacob Schmidheiny resigned his post as *Dornier* chairman. Aircraft construction alone could no longer guarantee a sufficient flow of

work, so a group of Swiss industrialists tried to run the works as a joint venture. But their plan fell through, and Dornier took to building wagons, at the same time regrouping to form the aircraft and vehicle factory *Flug- und Fahrzeugwerke Altenrhein*.

### **A salute without the Colonel**

In the other companies he managed, «his own» businesses, Jacob Schmidheiny remained at his post a while longer. In December 1953 he made over the chairmanship of the *Escher Wyss* works to his son Peter, 45 years old at the time. But what should have

been the real culmination of his lifetime's work he himself did not live to see. On the occasion of the company's 150th anniversary in 1955 workers and staff had commissioned a plaque for him from the sculptor Hermann Hubacher, a friend of the industrialist. The plaque was intended to honour «a courageous entrepreneur» and «a man with a profound sense of social responsibility». But on 8 January of the same year, at the age of eighty, Jacob Schmidheiny died in Schloss Heerbrugg. Peter Schmidheiny, his son and successor, accepted the plaque on his father's behalf.

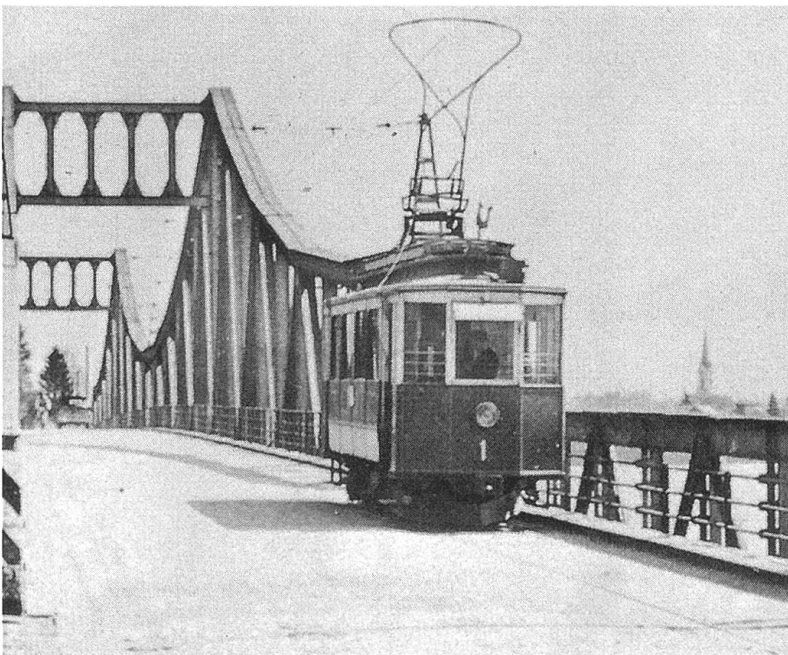


*Balgach with its little Protestant church. The Schmidheiny family tombs lie in its graveyard. For 40 years Jacob Schmidheiny II was a member of the parish council and for 25 years its chairman.*

## Chronology

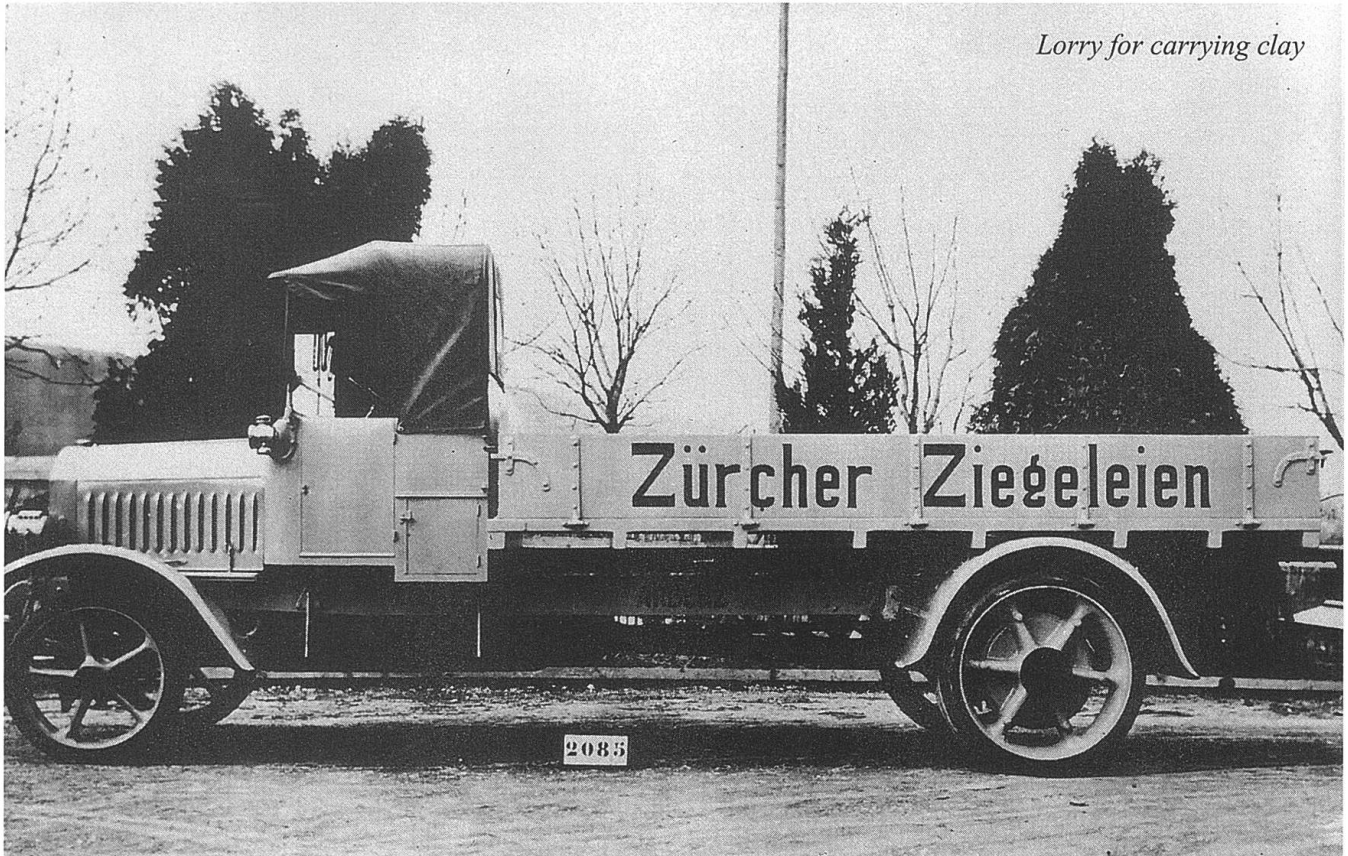
- 1875** 21 June: birth of Jacob Schmidheiny II
- 1895** School-leaving certificate (Matura) from St. Gallen cantonal school
- 1899** Awarded engineering degree (civil engineering) at the Federal Institute of Technology (ETH)
- 1901–1902**  
Jacob Schmidheiny II represents *Société Franco-Suisse pour l'Industrie Electrique* (Geneva) as site supervisor of the *Derivazione del Tirino* in Bussi (Abruzzi Mountains)
- 1902** Returns to Heerbrugg to succeed his father – with his brother Ernst I, Jacob Schmidheiny joins the new firm of *Jacob Schmidheiny und Söhne* as a partner
- 1903** President of the *Schweizerischer Zieglerverband* (Association of Swiss Brick and Tile-makers)
- 1904** 25 April: marriage to Fanny Alder

*The Heerbrugg–Diepoldsau tramway*



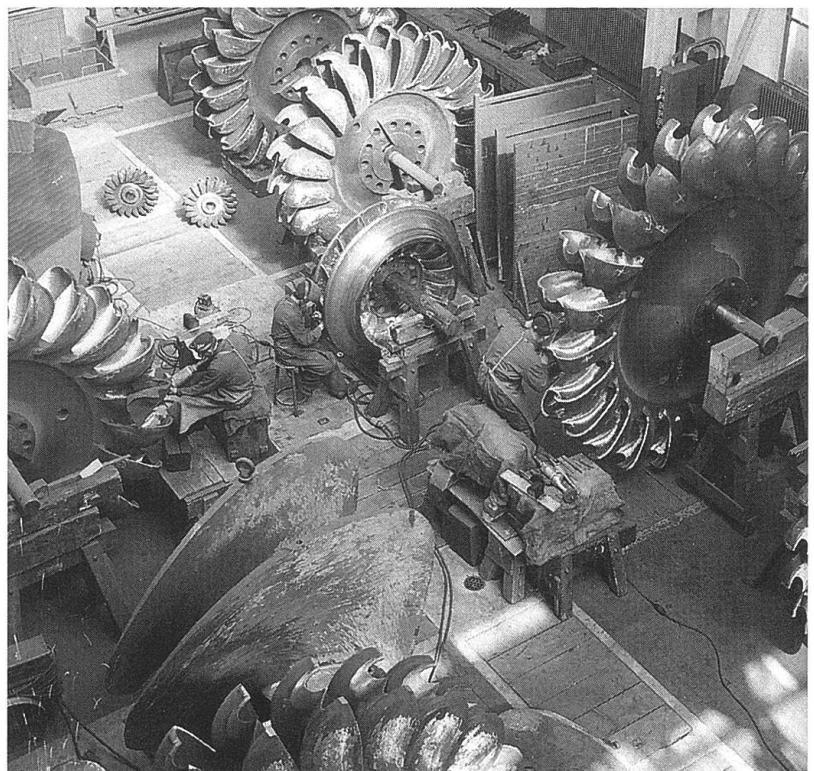
- 1905** 18 February: death of father Jacob Schmidheiny I – the firm of *Jacob Schmidheiny und Söhne* is renamed *Jacob Schmidheiny's Söhne* – chairman of the board of directors of the tramway company *Strassenbahn Altstätten-Berneck* (renamed in 1915 *Rheintalische Strassenbahnen* – chairman until his death in 1955) – 27 December: birth of daughter Nelly Helen
- 1906** Deputy chairman of the board of directors of the automobile factory *SAFIR AG, Schweizerische Automobilfabrik Rheineck* (until 1910) – together with Ernst Schmidheiny sits on the board of the steam brickworks *Dampfziegelei Heurieth*
- 1907** Jacob Schmidheiny becomes partner with unlimited liability in the new firm *Jacob Schmidheiny & Co. Heerbrugg* – demolition of the Espenmoos brickworks – the Heurieth and Albishof brickworks merge to form the *Albishof-Heurieth* brickworks
- 1908** 12 July: birth of son Peter
- 1911** 10 December: birth of daughter Marianne
- 1917** 11 June: birth of daughter Ursula – Jacob Schmidheiny becomes a managing director of the newly founded oil and fat works *Öl- und Fettwerke SAIS Horn (Società Anonima Italo-Svizzera)* – *Männedorf* brickworks taken over by Jacob Schmidheiny II
- 1921** 26 April: Together with Heinrich Wild and Robert Helbling, Jacob Schmidheiny sets up in Heerbrugg a precision engineering and optical workshop under the name of *Heinrich Wild, Werkstätte für Fein-*

Lorry for carrying clay



*mechanik und Optik*, which in 1924 merges with geodesic instrument sales company *Verkaufsaktiengesellschaft Heinrich Wild's geodätischer Instrumente*, established in 1923

- 1924** Enters the St. Gallen cantonal parliament (until 1935)
- 1925** 21 March: board member of *Zürcher Ziegeleien*, succeeding his brother Ernst Schmidheiny I – work begins on the house at Talstrasse 83 in Zurich
- 1926** Becomes a managing director of *Zürcher Ziegeleien*
- 1928** Chairman of the board of *SAIS* – chairman of the board of *Dornier AG* in Altenrhein (until 1945)
- 1932–1941**  
Incorporation of *Ostschweizerische Ziegeleien* into *Zürcher Ziegeleien*
- 1933** Chairman of the board of *Zürcher Ziegeleien*
- 1934** Member of the National Council (until 1935)



Grinding hydroturbine rotor disks at Escher Wyss

- 1936** Jacob Schmidheiny II and Hans Gygi acquire *Escher Wyss* shares. They are elected managing directors on 30 June 1937 – Jacob Schmidheiny becomes chairman of the board of directors
- 1941** *Escher Wyss* buys back the land and property which the city of Zurich had acquired when the company failed in 1935
- 1945** 21 June: The Department of Mechanical Engineering at the ETH, Zurich, awards Jacob Schmidheiny an honorary doctorate on his 70th birthday
- 1952** *Jacob Schmidheiny'scher Fonds zur Förderung der beruflichen Weiterbildung* (Jacob Schmidheiny Fund for the Promotion of Further Professional Education and Training) set up
- 1953** 15 December: Jacob Schmidheiny II hands over the chairmanship of the board of *Escher Wyss* to his son Peter
- 1954** 16 March: Jacob Schmidheiny passes on the chairmanship of the board of *Wild-Heerbrugg* to his nephew Max Schmidheiny
- 1955** 8 January: Death of Jacob Schmidheiny II

*Ernst Schmidheiny II*  
1902–1985



# Ernst Schmidheiny II (1902–1985)

## From cement to the top-flight position at Swissair

It seemed to be a tradition in the Schmidheiny family of industrialists from Heerbrugg: in the furthest domains of their companies, brothers jointly took responsibility for far-reaching decisions, decided jointly and jointly passed on their experience. This had been the case even in the second generation of entrepreneurs, Ernst I and Jacob II, at the beginning of the century; the phenomenon was to be repeated in the third generation with Ernst II and Max Schmidheiny. Max Graf, one of the most important personalities in the Schmidheiny empire at that time – he mainly built up its South American operations – later described his memories of the fifties: «At that time one never really knew which of the Schmidheiny brothers did what. However, they were in perfect harmony and worked absolutely hand in hand.» And even if they did not meet personally, they always discussed every decision with each other on the phone, from near and far, in the cement and the «Eternit» sides of the business. «They always greeted each other with «Saluti» – and then came to an agreement», says Max D. Amstutz, then a close colleague of Ernst Schmidheiny and later a leading member of the management of the «Hölderbank» group. The collaboration even functioned at a time when Ernst was heavily absorbed in his duties at Swissair.

In his memoirs Max Graf also mentioned something else, something very important, about the style of leadership practiced by the Schmidheiny brothers Ernst II and Max: it was, he

noted, «a completely intuitive kind of management». For neither of them was what one would call a modern company boss; neither of them had an organized, painstakingly set-out plan for his businesses. Both were characterized by what Jean R. von Salis wrote about the older of the two brothers in a memoir: «It is striking that in everything that Ernst Schmidheiny did, he stood above the system with a natural self-assurance and, if my information is correct, preferred a clear, appropriately structured organization based on competent, reliable colleagues to any kind of overblown setup.» Ernst, though, who was very skilled at motivating his staff, was reputed to be able to delegate more effectively, whereas Max relied instead on the motto «trust is good, but control is better».

### **A master of negotiating tactics**

Ernst, according to the testimony of people who used to work closely with him, was the stricter of the two in delicate crisis situations; he could be tough with his staff if need be. In general, though, he was the quieter and more obliging of the two. Those who had dealings with him admired his skill in negotiating and in drafting and concluding contracts – a quality he had clearly inherited from his father. From the latter, so he once said to his closest colleague in South Africa, Hans Rudolf Benecke, he had also received an exemplary training in this respect. He repeatedly stressed that with every contract one should ensure that it was just and benefited both par-

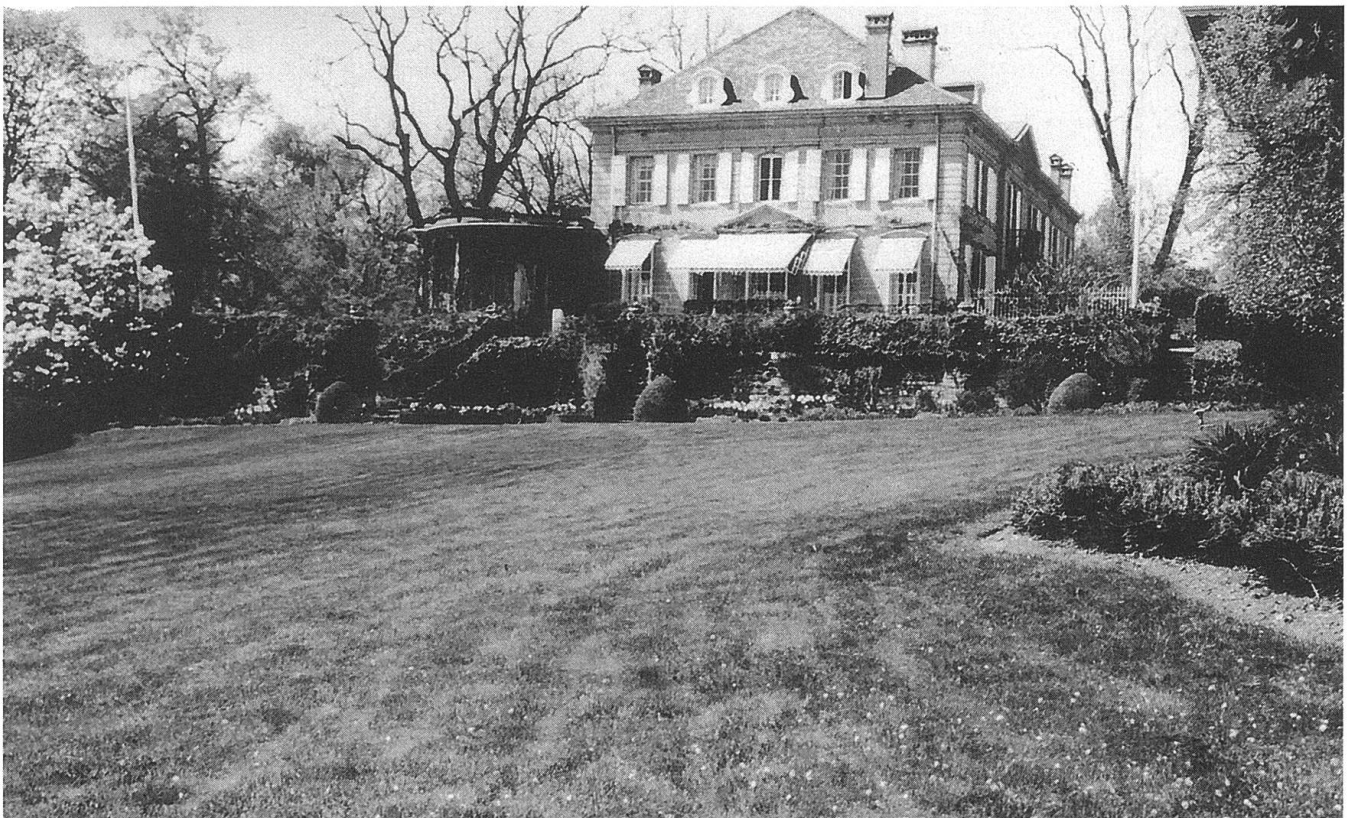
ties in the long term; also, he said, one should always consider from the outset how the other party or a third person might understand or interpret the wording of the agreement. A contract that was not drawn up according to these guidelines «would quickly become a worthless piece of paper». Hans Byland, another close colleague of Ernst Schmidheiny in South Africa, remembered in similar fashion the teaching he had received from the Heerbrugg industrialist on dealing with competitors: «He always recommended that one should first have a clear picture of one's own position, intentions and wishes, but one should then try to do the same for one's opponent, so as to foresee and understand his reaction and perhaps find a compromise.»

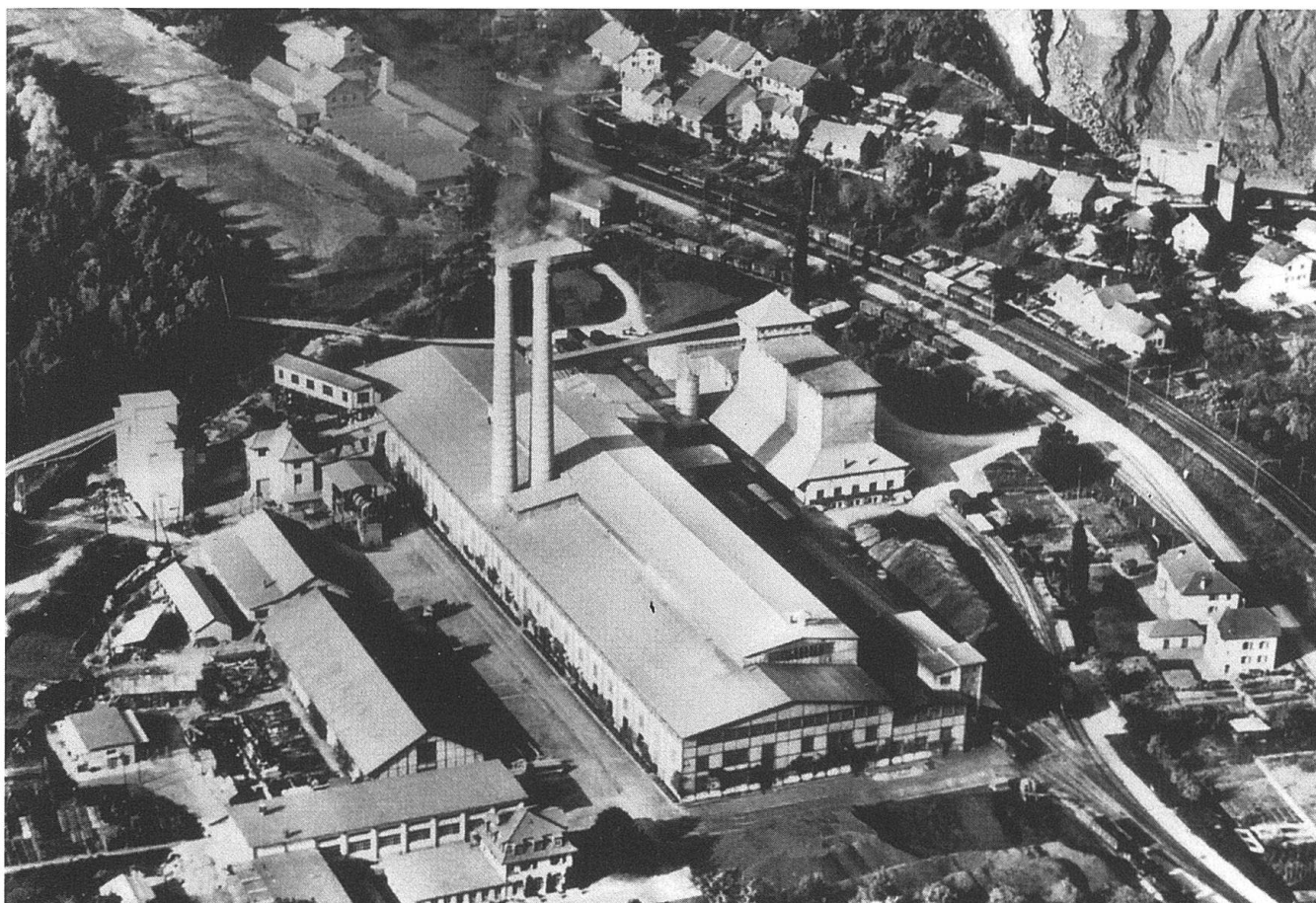
There was one respect in which the two brothers Ernst and Max were fundamentally different: in their public presence. Ernst, so the story goes, was extremely fond of large, elegant, luxurious cars, which he used above all in

French-speaking Switzerland. His magnificent estate «Garengo» in Céligny near Geneva, where he had a universally admired orchid farm, also became a byword among the initiates. For this farm he always brought back unique specimens from his trips to distant countries; this occasionally got him into trouble at border crossings, especially once when returning from Rhodesia to South Africa, when two or three exceptionally rare tree orchids were confiscated there and then by the customs officials.

Whether Ernst Schmidheiny merited the description «gentleman of industry» given him by Jean R. von Salis is a matter for dispute. At any rate, his lifestyle hardly matched the more reserved nature of his brother, even though both of them jointly indulged, during their active life, in a passion which was reserved for the higher echelons of society: in their leisure time they loved to travel into the Vorarlberg, where they were members of the Lenzling Hunting Society, of

*The «Garengo» estate in Céligny near Geneva, which Ernst Schmidheiny II moved to in 1940*





*The former «Holderbank» cement works in the canton of Aargau, where Ernst Schmidheiny began his apprenticeship as an ordinary shop-floor worker*

which «Uncle Jacob» had formerly been president and which Max later presided over. But Ernst Schmidheiny also enjoyed hunting in other places too, and from time to time proudly showed off in his home two large sets of antlers, a trophy from Hungary.

### **An apprenticeship starting from the bottom**

In the early years of his career Ernst Schmidheiny was obliged to follow a different road from his younger brother. Born on 16 July 1902 as the third of four children, he first attended the primary school in Heerbrugg and then Hof Oberkirch college, which he always had fond memories of. After this he entered the Ecole Supérieure de Commerce in Neuchâtel, but had to interrupt his studies because of tuberculosis and retire to Arosa and Davos for two years to convalesce; he never completed his secondary education.

His health restored, Ernst Schmid-

heiny embarked on a career in industry, entirely according to the family tradition. The young heir was to learn his profession starting from the bottom, and gain a real-life acquaintance with the people and the materials he would be working with. Not quite twenty years old, he began his apprenticeship at *Aargauische Portlandcementfabrik «Holderbank»-Wildeg* as an ordinary shop-floor worker – to be more precise, first of all as a laboratory assistant under the direct supervision of Adolf Gygi, a qualified chemist and at the time general manager of the plant. Ernst Schmidheiny's duties included the preparation of test specimens and the performance of tensile tests. He then had to penetrate the secrets of chemical analysis of the raw materials and of the finished cement. Adolf Gygi's son Hans remembers that Ernst subsequently worked «in the quarry, where the raw material was at that time still extracted by the danger-

ous «chute-hole» method, and in the raw material preparation plant, the cement grinding plant and the forwarding department. In particular, Ernst Schmidheiny worked for several months as a cement burner. The art of cement burning gave him quite a few headaches; this was due not to a lack of skill on his part, but to the rudimentary and imprecise proportioning equipment and the complete absence of gauges and the like on the kiln installation».

This practical training lasted for one year, during which Ernst Schmidheiny became familiar with every detail of the manufacture of Portland cement – beginning his career the hard way, so to speak. It goes without saying, of course, that during this time the young man was also introduced to the administrative side of the business, although at that time the effort spent on administration and accounting was minimal: «There were no monthly balances, and budgets for the next year, let alone for five years, were unknown», noted Hans Gygi in his memoir.

In April 1923 Ernst Schmidheiny senior and Adolf Gygi sent their sons Ernst and Max Schmidheiny with their cousin Peter Schmidheiny and Hans Gygi on a three-week trip to Luxembourg, Belgium and the Netherlands. Serving as their mentor was Professor A. Hartmann, a chemistry teacher at the Aargau cantonal school, who also introduced the young Schmidheiny to the mysteries of silicate chemistry. The driver of the «Minerva 12 PS» open car provided by their father Ernst Schmidheiny was Ernst junior. «On the first day the route led through Alsace, Lorraine and Luxembourg», wrote Hans Gygi later. «In the evening we arrived in Liège, where we spent the night. After dinner the tour leader and the driver immediately went up to

their rooms. The younger travellers, on the other hand, accepted Max's suggestion that we should take a look at the town before going to bed. We ended up in a cinema, where we had a bit of trouble on account of Max, for in Liège young people under 16 were in those days not allowed into cinemas.» The small party subsequently visited smelters, steel works and rolling mills as well as various cement works, «whose run-down-looking plant we did not find particularly pleasing compared with «Holderbank»», remembered Hans Gygi. The official purpose of the trip was that the youngsters should find out which cement works in the countries concerned were potential candidates for takeover. Ultimately, though, the enterprise had educational aims; according to Hans Gygi, its instigators were «clearly convinced that knowledge acquired at school was on its own not sufficient to prepare young people for working life; visual instruction was also necessary».

#### **Early days at «Holderbank»**

Real working life was soon to begin for Ernst Schmidheiny junior. In 1924 Adolf Gygi met with a fatal accident. The industrialist from Heerbrugg, then not quite 22, was appointed his successor. He held the post of technical general manager of *Aargauische Portlandcementfabrik «Holderbank»-Wildegg*, shared the management of the firm with Oskar Wagner, who had been promoted to commercial general manager, and henceforth had full responsibility for the firm, which he also represented in various trade organizations – much to the annoyance of more senior colleagues, who displayed to the allegedly inexperienced «patron» of *Portlandcementfabrik «Holderbank»* all the distrust felt by the older generation. Such a young man would be advised to hold his tongue, the

chairman of Kalk AG once intimated to Ernst Schmidheiny in Zürich, when he stubbornly held to an opinion which the chairman disagreed with...

At first, the «Holderbank»-Wildeg cement works did not cause any major problems. Business went satisfactorily up to the end of the twenties; the cash flow provided funds for the acquisition of interests in *Portlandcementfabrik Laufen*, *Vigier and Société des Chaux et Ciments de la Suisse Romande* as well as foreign investments, especially in Belgium, the Netherlands and Egypt. But then came the «Black Friday» of 25 October 1929 and the Great Depression – and, with a certain lag, hard times for Swiss businesses as well. For «Holderbank»-Wildeg this did not mean an immediate catastrophe; the canton of Aargau had a diversified industrial structure, and in 1930 work began on two large power stations in Wettingen and Albruck, which boosted cement production. Real unemployment did not begin until 1932.

For Ernst Schmidheiny senior, however, the worries came less from Switzerland than from an entirely different quarter. In particular, he had taken on too much in his foreign operations; the value of his assets in other countries depreciated due to the collapse of the various currencies. However, he himself would not experience the consequences of the disastrous decline; the entire burden of his over-indebted companies fell on his sons when he was killed in an air crash in the Sinai Desert on 15 March 1935. His elder son Ernst had accompanied him on that fateful excursion; he survived the crash and, only slightly injured, was able to summon help. His younger son Max was, doubtless fortunately for him, not with them at the time; he learnt of his father's sudden death from a distance.

The hard-hit family first had to consider whether they could and should actually enter upon the over-indebted inheritance. In the end, though, they accepted the legacy and took the necessary action. «Anything else was doubtless out of the question for these entrepreneurs, with their sense of mission» noted Werner Catrina in his book «Der Eternit-Report». Shortly before his death, Ernst Schmidheiny senior had had his son Ernst II appointed managing director of «Holderbank» *Financière AG*, established in 1930; now the office of chairman of the board of *Eternit Niederurnen AG* fell to him as well. For Ernst also had to devote himself together with his brother Max to the family business of asbestos cement; he had already been deputy chairman of the supervisory board of *Eternit Deutschland* since 1932.

### **Splitting up the headquarters**

At this time, the two brothers' fields of activity merged; outsiders could hardly tell them apart, even though Ernst's interests were directed more to cement making, i.e. to «Holderbank», and Max's more to Eternit. However, decisions on large investment projects were taken by both of them together; sometimes it was the one and sometimes the other who delegated trustworthy colleagues to undertake major tasks. This particularly applied to the operations abroad, where the formation or acquisition of cement companies usually ran parallel with the building of asbestos plants or asbestos cement works – in Egypt or South Africa, for instance. Here, both of them seemed to be in harmony in their assessment of the political and economic situation. In the late thirties, and certainly after the «Anschluss», when Austria was absorbed into «Greater Germany», the brothers had

clearly both recognized that they should reorganize their widespread foreign commitments and take appropriate precautions for their industries. First of all, wherever possible they bought up raw materials, asbestos and of course coal, which were vital to cement and «Eternit» production.

They also jointly decided to split their headquarters, in line with a scenario which in retrospect testified to many illusions but was in fashion at the time: it was generally predicted that Switzerland might be partitioned. Accordingly, Max remained in the eastern part of the country in order to come to some sort of arrangement with the Germans in the interest of the family businesses; Ernst was to move to western Switzerland to make an accommodation with the allies, especially the British. In practice, this meant that in 1940 the elder of the two sons transferred his home to Céligny near Geneva with his second wife Lucie Meyer from Olten, whom he had married in 1936. His first wife, Anna Margarethe Gygi, one of Hans Gygi's sisters, had borne him two daughters.

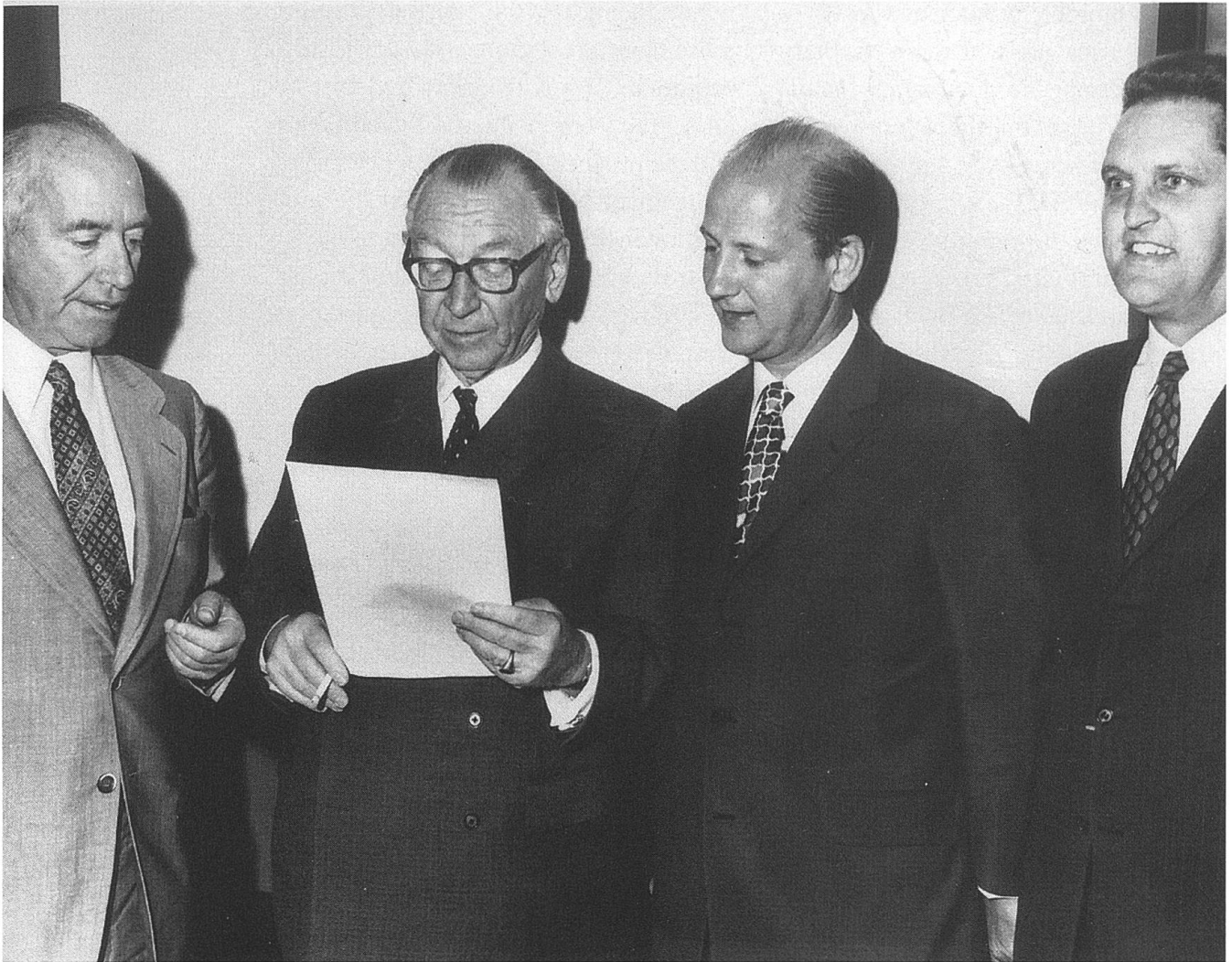
Moreover, the Second World War was just one of the difficult periods which «Holderbank» and with it Ernst Schmidheiny junior had to survive. In September 1935, after the death of his father, he had been thrust into the post of managing director – at a time when the cement industry was already suffering from a severe slowdown in sales and a substantial drop in production. Despite the troubled times, however, «Holderbank» worked continuously on the development, modernization and rationalization of the production plant, the forwarding department, the energy supplies and the research activities. The latter had been assisted since 1937 by a special «centre for technical cooperation», which ten

years later became the *Holderbank Technical Centre*.

The policy of ongoing modernization was even continued during the bleak months of the war. After the hostilities were over, in the late forties the firm really began to plan large extensions and especially to tap new and reliable sources of raw materials – one of the main worries at the time. On 19 June 1947 Ernst Schmidheiny was elected chairman of *Cementfabrik «Holderbank»-Wildeg*g – a function which he combined with that of managing director and which required him to make diverse, far-reaching decisions at home and abroad.

### **Expansion to South Africa...**

For «Holderbank» increasingly began to develop into a global company. This the Second World War also could not prevent; it could at most slow down the breakneck expansion a little. Back in 1937, Ernst Schmidheiny and his colleagues had already become aware of a deposit of raw materials for cement near Cape Town, which «Holderbank» subsequently bought. The newly established *National Portland Cement Company Limited* started to build a factory in the Cape Flats on False Bay, for which Ernst Schmidheiny together with Hans Gygi had awarded the contract for the mechanical equipment to the company *F.L. Smidth* in Copenhagen in late summer 1938. However, the outbreak of war – the factory was still under construction – did cause a number of problems: numerous machinery shipments which were en route from Europe to Cape Town were sunk by German U-boats. But the work went on and the link with Switzerland was maintained. The post of general manager of *National Portland Cement Company Limited* had been given to Hans Byland (from Aargau), who moved with his family to



*The two brothers Max and Ernst Schmidheiny with Anton E. Schrafl and Max D. Amstutz in South Africa*

Cape Town in the spring of 1939 and during the war largely – with a few exceptions – had to fend for himself.

Not until the war was over could Ernst Schmidheiny again give South Africa his full attention. He entered into negotiations with the *Anglo-Vaal Group*, which controlled *Anglo Alpha Cement Limited* of Johannesburg. It was merged with *National Portland Cement Company*, which was not in the best of health as it was dependent on raw material deposits that were too far away. Help came from Max Schmidheiny, who injected funds from the Tourah operation in Egypt, thus providing another example of the close relationship between the two brothers. «Holderbank» *Financière Glarus* secured a decisive influence over the enlarged and strengthened *Anglo Alpha Cement Limited* group,

which began to occupy an important position among the cement companies of South Africa. Hans Byland's son Peter was subsequently chosen as its chief executive and chairman.

The beginning of the Second World War also saw the start of the Schmidheiny family's asbestos cement operations in South Africa. The family was trying to break away from Egypt, which had become unsafe. In 1940 Ernst Schmidheiny asked a college friend of his brother Max, Hans Rudolf Benecke, whether he would be willing to go to South Africa to assess the chances of success for an asbestos cement industry. Despite the upheavals of the war, Benecke's journey via unoccupied France, Spain, Portugal and on Portuguese ships went reasonably well. The result of the excursion was very positive, and in March 1941

Ernst Schmidheiny managed to fly to South Africa in a British military plane to study the documents for the new enterprise on the spot. On 22 April of the same year – in full agreement with Max Schmidheiny, of course – *Everite Limited* was formed in Johannesburg. Ernst returned to Switzerland, again in a British military aircraft; for the next five years, Benecke too was left to fend for himself. «Contact with Switzerland», he later wrote in the memoir, «was only possible by cable or sea mail.» The capital for the formation of *Everite* had been transferred to an account with a bank in Johannesburg in the name of Benecke, who enjoyed Ernst Schmidheiny's complete trust, although the latter declared to his South African chief executive that he was bound to be caught immediately if he should try to run off with the money...

In March 1946, shortly after the war, Ernst Schmidheiny wished to go to South Africa again, this time with his wife. However, the Portuguese ship on which they had secured places caught fire near Las Palmas. The couple nevertheless finally reached their destination by means of an adventurous flight via the Congo and Angola and were able to visit *Everite's* two now completed factories in Kliprivier and Brackenfell. Ernst Schmidheiny subsequently made several trips to southern Africa and, from 1947, also to Rhodesia, a country for which he began to have a very high regard. There, he and Benecke prospected for asbestos mines to supply the raw material for *Everite*. The first of these deposits, the *Vanguard Mine* in southern Rhodesia, grew into the company *Asbesco*.

Of course, not every prospecting operation was successful, even those which Benecke described in his reminiscences on the occasion of Ernst

Schmidheiny's 70th birthday: «In those days a real pioneering spirit still prevailed. (...) A few scattered asbestos fibres were visible on the surface, and the prospector had dug a primitive shaft about 100 feet deep. At the top was a winch constructed from branches, from which hung an iron bucket on an ordinary rope which was just big enough for a man to put one leg in and hold onto the rope at the top with his hand. By this means we descended one by one into the shaft and critically appraised the beds of rock and the fibres they contained.»

### ...and to North America

In line with the geographical split which the Schmidheiny brothers had planned for their foreign interests even before the Second World War, the American continent initially fell more into Ernst's sphere of interest. In 1950 Hans Gygi proposed that «*Holderbank*» should expand its cement operations into Canada. Near Quebec, at Villeneuve on the banks of the navigable St. Lawrence River, he had been shown a large raw material deposit. The *Holderbank Technical Centre* undertook the preliminary work for a new factory, but discovered that the cost was higher than the Swiss cement industry had estimated before the war. Ernst Schmidheiny therefore decided to set up a Swiss group under the leadership of «*Holderbank*» *Financière Glarus* which, with the help of Swiss banks, subsequently established the *St. Lawrence Company Montreal*. The competition turned out to be very tough; it was clear straight away that the new firm could only survive if it could supply a cheaper product of better quality. Since the efficiency of a cement plant increases with its production capacity, «*Holderbank*» took the risk of purchasing machinery units with a capacity double that which was



*The Mississauga works of the Canadian Company St. Lawrence Cement Co.*

normal at the time. The gamble paid off. Soon afterwards the *St. Lawrence Company* built a second major works in Mississauga near Toronto on the shores of Lake Ontario with almost the same features as the first Canadian venture.

The company then itself expanded into the United States – always in agreement, of course, with «*Holderbank*» and its boss. It first inspected a large raw material deposit near Detroit; the *Dundee Cement Company* in the state of Michigan was formed, the financial needs of which proved to be very high. Besides the capital placed in Switzerland, American money was also needed. This was finally raised thanks to E. Schmidheiny's negotiating skills. The new plant was opened at the beginning of June 1960; it was running at a profit after only three years.

Five years later, this success led the *Dundee Cement Company* to build a large new work in Clarksville, Missouri, on the banks of the Mississippi north-west of St. Louis. There too, raw materials were available in large quantities, and coal and electricity could be obtained at favourable terms. To keep the capital and operating costs as low as possible, enormous machinery units had to be purchased and the plant's own harbour facilities constructed. The barges developed by *Dundee* itself were intended to enable the cement to be shipped by water to terminals on navigable rivers, from where the product would be taken by truck to major centres of consumption.

The realization of this completely novel concept required a certain amount of optimism, which Ernst Schmidheiny clearly did not lack.

## Cement and Eternit in Latin America

The expansion into South America, in both cement and asbestos cement, was also really the brainchild of Ernst Schmidheiny and the two men who lived very near him in Céligny and became his closest friends: Max Graf and Max D. Amstutz. Graf was taken on by Ernst Schmidheiny in December 1944 – following a discussion in the station buffet in Zurich which Graf later remembered; Schmidheiny, he said, had greatly impressed him «simply by his manner». «And then he offered me the chance to go abroad. In his naturalness and <generosity> (which was, however, not necessarily expressed in the pay he offered), he made the decision easy for me, especially since he bore a name which even then almost made one stand to attention». From 1946 onwards Max Graf developed, as Ernst Schmidheiny's personal secretary and «maid for all work» (as he called himself), into his South America specialist. He crossed the South Atlantic Ocean 202 times, so he calculated, in four decades of management activity – a time-consuming business, especially in the early years with ship voyages lasting for weeks. He primarily attended to the asbestos cement interests; to begin with he supervised the existing plants in Brazil, Colombia and Venezuela, and from 1958 to 1965 he directed the takeover or establishment of companies in Ecuador, El Salvador, Guatemala, Costa Rica, Honduras and Nicaragua. From 1962 onwards he began to restructure the companies in his care, «slowly turning away from the one-man business», as he put it. He formed a management organization for Latin America, which was given the name *Amindus AG* (the word is also derived from asbestos); it was initially based in Niederurnen, but from 1964 operated

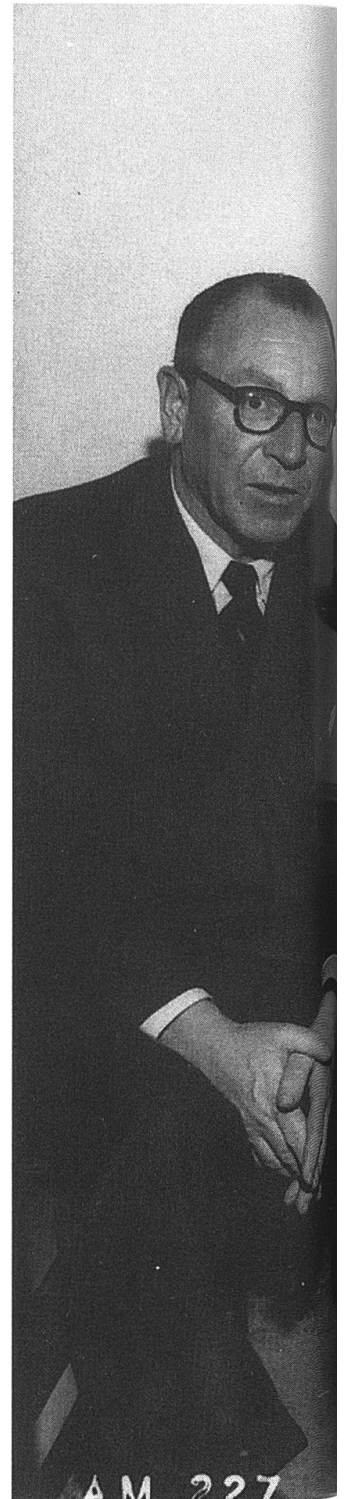
from Nyon, in Ernst Schmidheiny's vicinity.

That was the period when Max Graf never quite knew who was really his boss, Ernst or Max: «Once a year I had a meeting with the two Schmidheiny's together, otherwise I met with the one or the other individually if necessary and discussed many things with them on the phone. They did not push me, they let me see to things; they trusted me.»

For Max Graf also worked at times for the cement operations, i. e. for the «*Holderbank*» group, although it was Max D. Amstutz who took charge of its interests as of the late fifties. He too worked closely with Ernst Schmidheiny, but he was also responsible to Ernst's brother Max. From 1959 to 1964 Amstutz was managing director of what was then the only «*Holderbank*» factory in Latin America, the *Companhia de Cimento Ipanema* in São Paulo, Brazil. On returning to Switzerland, he built up, in collaboration with others, the Latin American branch of the «*Holderbank*» group – true to a model which was part of Ernst Schmidheiny's true creed and was officially approved by the group's board of directors in 1970: «The governing principle is that of decentralized, federalist management; that is, the subsidiaries, as profit centres, are to be largely independent managerially and commercially, in order to preserve initiative and self-determination.»

## The future of Swissair

In the second half of his life, Ernst Schmidheiny enthusiastically devoted himself to another task which was completely new to him and which had nothing to do with cement or «Eternit»: *Swissair*. Again and again he steered his conversations with friends, colleagues and confidants towards it,





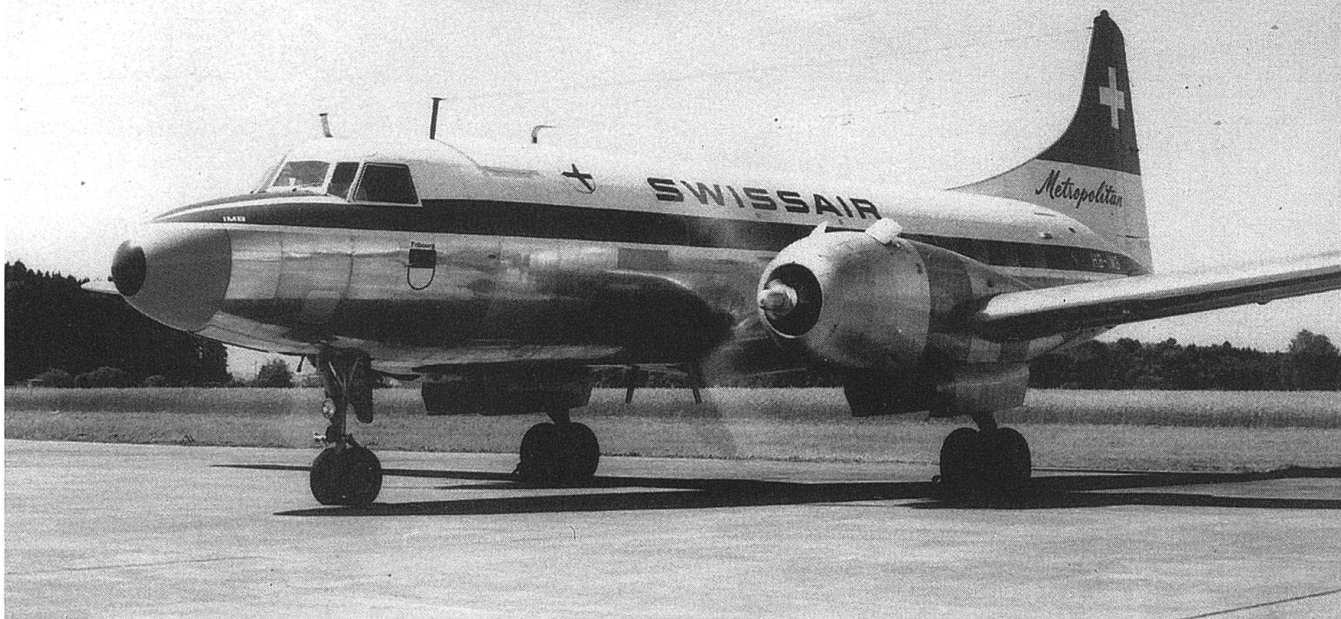
*Ernst Schmidheiny (left) next to Dr. Rudolf Heberlein, chairman of the board of Swissair, in Burbank, California, during a visit to Lockheed Aircraft Corporation in the autumn of 1956. Next to Heberlein are Professor Eduard Amstutz, delegate for civil aviation, and Thomas Bergmann, general manager of Lockheed.*

## Ernst Schmidheiny and the decisions on Swissair's aircraft

*The DC-4, the first four-engined propeller aircraft to come out of the Douglas factory in San Diego, ordered by Swissair in 1946 when the plane was basically already obsolete. It nevertheless flew the Geneva – New York route for the first time on 2 May 1947 and remained in service with the company until 1959.*



*The Convair Metropolitan, which formed the backbone of Swissair's European traffic between 1950 and 1968*



*The DC-8, one of the first long-haul jet aircraft, put into service by Swissair from 1960*



*The Coronado CV-990, in service with Swissair from 1962, was initially beset by teething troubles and upset the cooperation with SAS.*



*Eight Caravelles made by the French firm Sud Aviation in Toulouse, long regarded as a pioneering model, were in service with Swissair as of 1960.*



even if something quite different was being discussed, and many a deal in the building sector passed into the hands of his brother Max as he concerned himself more and more with the national airline. For «*Swissair* was everything to him, almost more than cement», admitted the future chairman of the board, Armin Baltensweiler, who had worked closely with him. He was completely absorbed with it; to be involved in its preservation and rescue was for him a challenge of the first order.

For that was exactly what was at stake in the forties, when Ernst Schmidheiny was concerned with *Swissair*: the future of the national airline, which was at that time engaged in a passionate debate over its destiny. It was wrestling with the problem of whether to actively move into the international long-haul sector or to remain a local, and thus provincial, feeder airline.

The pioneering aviator Walter Ackermann had issued, shortly before his death in 1937, the prophetic call: «The time must come when the Swiss cross flies across the Atlantic in scheduled service.» However, influential people in the land – especially those associated with the Swiss Association of Commerce and Industry – saw things differently. Even in 1944, the then chairman of *Swissair*, Alfons Ehinger, gave a testimony of discouragement: «Many of the international air traffic plans which are currently being presented in the press as comprehensive should, when considered rationally, be described as rather imaginative and questionable; other such projects are, where Switzerland is concerned, only worth following up at some future date. It is clear at the present time that our air traffic on the routes to and from Europe's main centres will first and foremost have the

role of carrying mail.» The vice chairman of the board, Colonel Edwin Schwarzenbach, supported him: «After the war is over, planes of the size of our Douglas DC-3s will doubtless be sufficient for our purposes at first, and it will then become clear whether anything larger is required for the continental inter-city traffic and feeder services.» Colonel Schwarzenbach went on to say that air traffic from overseas would serve the airports of a few European capital cities, and from there «the smaller feeder aircraft would radiate out in all directions, including to Switzerland». Schwarzenbach also expressed his conviction that «the purchase of really big planes with forty or more seats and with room to sleep» belonged «more or less to the realms of utopia».

After 1945 little changed at first. The board of *Swissair*, which had been formed on 26 March 1931, initially groped its way forward in the traditional Swiss manner with a wait-and-see attitude and a policy of half-hearted decisions. During the war, big, heavy long-range aircraft had easily proved their value, and the Scandinavian airlines were using crash-landed American B-17 bombers in civil aviation on an experimental basis and for training purposes. But at *Swissair* – as the former chief executive officer Walter Berchtold resignedly stated in his memoirs «Durch Turbulenzen zum Erfolg» (through turbulence to success) – people were unwilling to «engage in experiments with untried planes». In June 1946, therefore, four DC-4 long-haul aircraft – already an out-of-date model – were ordered at a cost of eight million Swiss francs. They were the last ones off the production line, and from then on nobody was interested in them. New types were already emerging: the DC-6 with its pressurized cabin had already had its maiden flight

in February 1946. *Swissair* was also to buy this plane, but not until much later – in 1950!

### Long-haul flights: yes or no?

Ernst Schmidheiny was thrown into the confusion of the controversy over long-haul flights with his election to the board of *Swissair* on 12 February 1947 – a week after the company had officially been given the title of *Swiss national carrier*. For him, the task was in itself not new; since 1946 a commission chaired by ETH Professor Eduard Amstutz, the «delegate for civil aviation», had been looking into the restructuring of *Swissair* and Swiss aviation in general. Among the members of this group was Ernst Schmidheiny as a representative of industry.

He therefore knew that as a member of the board, he immediately had to

tackle some extremely delicate problems – in particular, with a submission drafted in the spring of 1948 to the Swiss Department of Posts and Railways, in which the company's top management asked the federal government in a roundabout manner for help by purchasing three modern Lockheed Constellation or Douglas DC-6 airliners. These types would of course be used on long-haul flights. However, the submission itself was extremely contradictory on this issue: on the one hand, the document provided a wealth of statistics to confirm the poor results of the long-haul test flights, yet on the other hand, it said that it was still necessary to address the question of whether a regular long-haul service ought nevertheless to be started in the country's overriding interest.

The *Swissair* management had clearly drafted the submission without

*Ernst Schmidheiny, member of the committee of the board of directors of Swissair, with his wife Lucie during the demonstration flight of a prototype Boeing 707 in 1956*



consulting the board of directors, which earned it a sharp rebuke from Ernst Schmidheiny on 18 June 1948. On this occasion the industrialist from Heerbrugg clearly came out in favour of the development of a long-haul service «on a modest scale within a specific programme», which, he said, must then be adhered to at all costs. This was a plea for regular scheduled flights; if these flights were only operated if there was sufficient demand, as certain ditherers clearly wished, it would be very difficult to find passengers.

The federal government never replied to this strange submission. On 23 September 1949, after a very lively meeting, the *Swissair* board nevertheless decided by a large majority to purchase three modern long-haul aircraft. But the decision came too late. Five days before, on 18 September, the sterling pound had been devalued; the currency crisis temporarily put an end to all the airline's high-flying plans.

On 27 June 1951 a change of personnel took place on the board which was to prove crucially important for Ernst Schmidheiny's future at *Swissair*. Dr. Rudolf Speich, a long-time reactionary, handed over the chairmanship of the board to Dr. Rudolf Heberlein, a textile magnate from Wattwil and a man whose «fiery nature (...) was not always easy to deal with», as Walter Berchtold noted. Schmidheiny was linked to Heberlein by a particularly close relationship of trust and friendship; both of them, as amateur pilots, had a personal relationship with flying. At *Swissair*, those in the know had spread rumours even in 1951 of a kind of «Fronde» which the two men, together with others, had formed around the company's board of directors. This «Fronde», according to Walter

Berchtold, «was not in keeping with the timid way in which the Swiss airline was being managed». The dawning of a more dynamic era at *Swissair* and the fresher wind which began to blow through the management certainly pleased the enterprising industrialist Ernst Schmidheiny.

His position strengthened when he was elected to the committee of the board of directors on 21 December 1953 – albeit with some difficulty. In August the former chairman Dr. Alfons Ehinger had died; men from Geneva and Basel laid claim to his post on the committee. The Swiss Bank Corporation general manager Dr. Samuel Schweizer was put up against Schmidheiny; after a fierce debate, however, the board of directors finally chose Schmidheiny by a majority of five votes.

### **The switch to jet aircraft**

A few years later, the entire burden of responsibility for *Swissair* was to fall on Ernst Schmidheiny. In the night of 5 January 1958, Rudolf Heberlein suddenly died. At first, some of the top men at *Swissair* thought of falling back on a plan formed eight years previously and electing Walter Berchtold as the new chairman of the board. But «matters took a different turn», wrote Berchtold later in his memoirs; «The cement industry magnate Ernst Schmidheiny went to the first vice chairman Prof. Amstutz and declared his willingness to become Dr. Heberlein's successor. When news of this discussion came out, all alternative suggestions were silenced, and on 17 February 1958 the board of directors unanimously elected Ernst Schmidheiny as its chairman.» Berchtold remained managing director and chief executive officer. He continued to have an excellent working relationship

with the new chairman of the board; the two of them made, according to later members of the *Swissair* administration, a «fantastic team». Schmidheiny was entirely different from his predecessor in his temperament and style of management. He exhibited, wrote Berchtold, «an external calm, which enabled all the business to be prepared harmoniously by means of objective discussion. He in fact warned me on my first visit that the development of *Swissair* would in future have to proceed at a more moderate pace. Although there were stormy developments to come, which would also put *Swissair* in a precarious position, he never curbed the management's initiatives and his support for it was rock-solid».

Even under Heberlein, Schmidheiny had to deal with a problem which was to become a life-or-death question for *Swissair* at that time: the switch from propeller to jet aircraft. This was an extremely difficult deci-

sion. The aircraft makers were just bringing out a new generation of high-performance propeller aircraft, tempting some airlines to stick with the old system. *Swissair* nevertheless decided to step out in the other – new – direction. Schmidheiny and his colleagues were doubtless aware that the switch presented a risk, as it had to be made in one go and required a complete restructuring of the company.

It was clear to all those in charge of the Swiss airline that it could not undertake the modernization on its own. Schmidheiny himself emphasized in June 1958 that in aviation the trend always pointed towards ever larger and ever more expensive aircraft. For the smaller airlines, which could each only operate a few machines of the same type in their fleet, it would become increasingly difficult to keep the acquisition costs at a competitive level. As a partner for *Swissair*, *SAS* particularly fitted the bill. At the instigation of the Swedish industrialist

*Ernst Schmidheiny, chairman of the board of Swissair, in conversation with the then chief executive Walter Berchtold at the opening of the Hotel Airport in March 1964*



Markus Wallenberg, who was friendly with Ernst Schmidheiny, a fruitful (albeit not entirely easy) relationship going back to 1956 had developed between the Swiss airline and the Scandinavian company, which resembled *Swissair* in certain respects. Both firms pursued similar policies with regard to hardware, owned the same types of aircraft, and despite being partly state-owned had committed themselves to an independent, profitability-oriented management. First of all, they successfully standardized the DC-8s ordered from *Douglas*. In addition, work began on preparing a more extensive mutual agreement; however, Heberlein, the chairman, would not live to see its conclusion. It was his successor, Ernst Schmidheiny, who reached the finishing line: on 6 October 1958, in the Hotel Eden-au-Lac in Zurich, an agreement was signed which regulated the close cooperation and, in particular, provided for a common fleet policy. *Swissair* ordered five Coronado 880 mid-range jet aircraft from *Convair*; two of these planes were to be leased to SAS, which would in turn lease four Caravelles from *Sud Aviation* to the Swiss company.

However, the conclusion of the agreement did not put an end to the troubles of *Swissair's* chairman and its top executives. The Coronados, supplied as a modified model with the number 990, were at first beset with persistent teething troubles – one of the factors which caused the cooperation with SAS to totter. To solve these problems, in 1961 Ernst Schmidheiny and the then chief engineer Armin Baltensweiler got in touch with *Convair* on a trip to San Diego.

The obsolete piston-engined planes were to be got rid of. In 1963-64 the company's short-haul fleet had to be renewed and the decision in favour of

the DC-9 taken in a difficult balancing act. This and the complete restructuring of *Swissair* naturally required considerable financial resources: the company's capital was increased in 1958, 1959 and 1964 – operations which according to the future chairman of the board, Baltensweiler, were each time well received by the public, as Ernst Schmidheiny enjoyed widespread confidence.

Moreover, under his aegis the plans for the construction of the Balsberg central administration building were streamlined; the Schweizerische Luftverkehrsschule (Swiss Pilot Training College) was founded, talks with the Dutch airline *KLM* began, and a co-operation agreement was concluded with *Austrian Airlines* – thirty years before there was some talk of mergers with a big European airline. In the autumn of 1963 the then chairman of *Swissair* faced the difficult task of addressing the relatives of the eighty people who were killed in the crash of flight SR 306 Zürich-Geneva-Rome, operated by a Caravelle, on 4 September near the village of Dürrenäsch in the canton of Aargau.

On 29 September 1965 Ernst Schmidheiny resigned from his post as chairman of the board of *Swissair* «as the load had simply become too great», as he himself testified. His own companies required his attention, and in addition, *Union Bank of Switzerland* had elected him vice chairman – a position which itself would be very time-consuming. However, he remained on the committee of *Swissair's* board until 26 April 1968 under his successor, the textile magnate Fritz Gugelmann from Langenthal; he then was relieved of this burden as well, but continued to play an active role in the affairs of the national airline as an ordinary member of the board until 1974.

Stepping back into the ranks was clearly not a problem for him, for at no time in his entire career did he try to gain prestige or material profit from his leading position. Philippe de Weck, former chairman of *Union Bank of Switzerland*, later fondly recalled a typical episode which he experienced as a young general manager during a flight from Geneva to Zurich. Also on the flight was Ernst Schmidheiny, at that time chairman of *Swissair*, who invited de Weck and a well-known Middle Eastern businessman who was travelling with them to join him in a glass of whisky. The foreign guest couldn't believe his eyes when, as the plane was approaching its destination, the *Swissair* hostess appeared and said «Mr Schmidheiny, can I take your money, please?» and Mr Schmidheiny paid for the drinks without batting an eyelid...

### **Times change in the cement industry**

Three years after his retirement as chairman of the board of *Swissair*, the University of Geneva presented Ernst Schmidheiny with an exceptional honour. It bestowed on him – a man who had been unable to complete his secondary education for health reasons – the highest possible academic distinction. It awarded him the title «Docteur ès sciences économiques honoris causa» for his services to Swiss industry. In this way it rewarded the eminent interest in research, the foundation of all sound industrial development, which Ernst Schmidheiny had allowed to flourish during his entire career as a businessman. Back in September 1962 the board of «*Holderbank*», the cement company which he directed, had set up a foundation «for the advancement of scientific education» on the occasion of its 50th anniversary; its purpose was «to

enable young people to further their education in a particular field of science. The foundation promotes all educational and career paths and all scientific disciplines». And it really did pursue this goal, occasionally even well outside areas which might be «useful» to «*Holderbank*» as an industrial firm, entirely according to the ideals and the will of its founder.

In December 1965 the *Ernst and Lucie Schmidheiny Foundation*, based in Céligny, was set up. According to its official statutes, this charitable foundation's purpose was «to contribute in a general manner to the advancement of the University of Geneva». And in May 1972 the board of «*Holderbank*» decided to establish an *Ernst Schmidheiny Foundation*, endowed with one million Swiss francs, for the purpose of promoting interest in, and an understanding of, «economic relationships in the context of the liberal social market economy among the Swiss public and especially among young people». From the very beginning the foundation has held «business weeks» at secondary schools, which chambers of trade and industrial associations are in charge of organizing. The actual training is provided by executives of Swiss industrial companies, the goal being to help students to learn – through discussion and personal contact – to understand different corporate philosophies and the environment that enterprises operate in.

There was a twofold reason for setting up this foundation: Ernst Schmidheiny celebrated 50 years of service on 1 May 1972 and his 70th birthday on 16 July. However, the pace of industrial development had become so fast that Schmidheiny no longer could or wished to keep up with it. In the same year «*Holderbank*» decided to build an ultra-modern plant at Rekingen; it was ready for service in 1975. How-

ever, it also signified that times had changed completely in cement making, and ultimately marked the end of an era for Ernst Schmidheiny. In 1977 the management and the board of directors moved to the new factory, and in 1980, 68 years after its construction, the works in Holderbank closed the gates for all time. Ernst Schmidheiny slowly withdrew from the firm's activities. As long ago as 1974 he had handed over the chairmanship of «Holderbank» *Financière* to his brother Max; the latter's oldest son Thomas gradually became familiar with handling the problems of the cement industry, became managing director of «Holderbank» in 1975 and took over as head of the group a year later.

Ernst Schmidheiny remained honorary chairman of the company, although he could not of course take an active part in it right up to the end of his life. A serious and extremely painful illness overshadowed his final years. Death released him from his suffering on 2 March 1985.



*The «HCB plant in Rekingen*

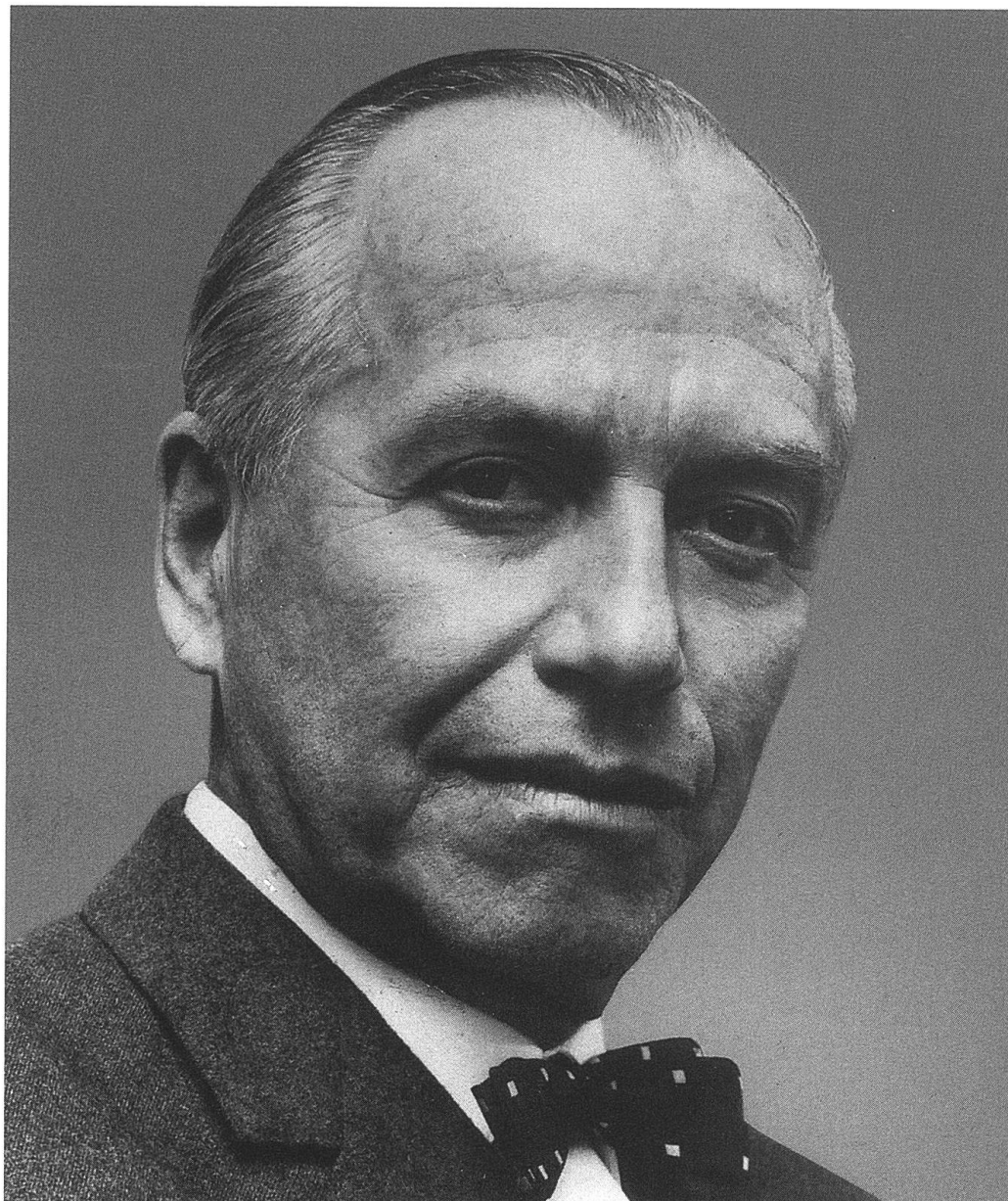


## Chronology

- 1902** 16 July: Birth of Ernst Schmidheiny II
- 1922** 1 May: Ernst Schmidheiny II joins *Aargauische Portlandcement-Fabrik «Holderbank»-Wildeg* (established in 1912)
- 1923** April: Ernst and Max Schmidheiny go on a three-week fact-finding trip to Luxembourg and Belgium together with Hans Gygi, Peter Schmidheiny and Prof. Dr. A. Hartmann, chemistry teacher at the Aargau cantonal school
- 1924** 24 February: death of Adolf Gygi; Ernst Schmidheiny assumes responsibility for the management of the «*Holderbank»-Wildeg* works as technical general manager together with Oskar Wagner, the commercial general manager
- 1925** 3 January: marriage to Anna Margarethe Gygi
- 1929** 9 November: daughter Annemarie is born
- 1931** 2 January: daughter Susanne is born
- 1932** Ernst Schmidheiny junior becomes deputy chairman of the supervisory board of *Eternit Deutschland* (until 1942)
- 1935** 15 March: death of his father Ernst Schmidheiny I in an air crash near El Arish in the Sinai Desert – his elder son Ernst Schmidheiny II, who had recently become managing director of «*Holderbank» Financière Glarus Ltd. (HOFI)*, now also takes over the chairmanship of *Eternit Niederurnen*
- 1936** 26 November: marriage to Lucie Meyer from Olten
- 1937** «*Holderbank*» sets up the Centre for Technical Cooperation, which is to become the «*Holderbank» Technical Centre* in 1947 – formation of *National Portland Cement Company* in South Africa; over the next few years the company builds a plant in the Cape Flats on False Bay near Cape Town
- 1940** Ernst Schmidheiny moves to Céligny near Geneva
- 1941** 22 April: formation of *Everite Ltd.* in South Africa – building of the Kliprivier and Brackenfell plant
- 1942** Ernst Schmidheiny joins the board of directors of *Union Bank of Switzerland*
- 1947** 12 February: Ernst Schmidheiny becomes a member of the board of directors of *Swissair* and, during the year, chairman of the board of *Cementfabrik «Holderbank»*
- 1947/48** Acquisition by «*Holderbank*» of a majority interest in *Anglo Alpha Cement Company*, Johannesburg, by amalgamating *National Portland Cement Company* with it; control of *Anglo Alpha* passes to «*Holderbank*» – acquisition of asbestos mines in Rhodesia
- 1950** «*Holderbank*» begins to establish itself on the American continent, first of all in Canada; building of the factories at Villeneuve on the St. Lawrence River and Mississauga on Lake Ontario
- 1953** 21 December: Ernst Schmidheiny is elected to the committee of the board of *Swissair*
- 1955** Ernst Schmidheiny becomes chairman of the board of «*Holderbank» Financière (HOFI)*

- 1958** 6 January: death of Rudolf Heberlein, chairman of the board of *Swissair* – 17 February: Ernst Schmidheiny is elected as his successor – «*Holderbank*» goes public under Ernst Schmidheiny's leadership
- 1960-1969**  
Expansion of «*Holderbank*» to Latin America
- 1962** Ernst Schmidheiny sets up the «*Holderbank*»-*Stiftung zur Förderung der wissenschaftlichen Fortbildung* (Foundation for the Advancement of Scientific Education) on the occasion of the «*Holderbank*» cement works' 50th anniversary
- 1965** 29 September: Ernst Schmidheiny resigns as chairman of the board of *Swissair*, but remains on the committee until 26 April 1968 – 23 December: establishment of the *Ernst and Lucie Schmidheiny Foundation* for the advancement of science at the University of Geneva – building of the cement works at Clarksville, Missouri
- 1966** Ernst Schmidheiny becomes vice chairman of the board of *Union Bank of Switzerland* (until 1974)
- 1968** June: the University of Geneva bestows on Ernst Schmidheiny the title «*Docteur ès sciences économiques honoris causa*»
- 1969** Formation of the management consultancy company «*Holderbank*» *Management and Consulting Ltd.* under Ernst Schmidheiny's direction
- 1972** May: in recognition of Ernst Schmidheiny's imminent 70th birthday and 50 years of service, the *Ernst Schmidheiny Foundation* for «promoting an interest in and an understanding of economic relationships in the context of the liberal social market economy among the Swiss public and especially among young people» is set up
- 1974** Resignation from the board of *Swissair* and as chairman of the board of «*Holderbank*» *Financière*; Ernst Schmidheiny becomes the latter company's honorary chairman
- 1976** Thomas Schmidheiny replaces his uncle Ernst Schmidheiny in the management of the «*Holderbank*» group
- 1985** 2 March: Death of Ernst Schmidheiny II





*Max Schmidheiny*  
1908–1991

# Max Schmidheiny (1908–1991)

## Traveller between worlds

Among Max Schmidheiny's papers, there is a précis of the thoughts championed by the British philosopher historian Arnold Toynbee. Two sentences are heavily marked, with a handwritten comment in the margin: «Quite so!». The sentences in question state: «Human cultures have survived only as long as they have had the ability and the will to solve their existential problems. Accordingly, our future depends neither on some or other <prognosis> nor on private or public pipe-dreams, but solely on our will to master this future.»

The note in the margin expresses Max Schmidheiny's character and philosophy – a man about whom Hans A. Lüthy, director of the Swiss Institute of Art Studies, wrote a different but equally valid appraisal. In the course of their long friendship, Lüthy, Schmidheiny and Schmidheiny's wife Adda spent many hours discussing the Swiss painter Ferdinand Hodler, of whose works the Heerbrugg industrialist had built up a unique collection. «I am convinced», wrote Lüthy, «that owning works of art changes the owners. (...) There is a power in works of art: their meaning and content rub off on the collector, who begins to see the outer and inner world in a different light. Hodler's extraordinary combination of robust character and surprising sensitivity, in particular, has this effect, and I believe I can say that as Max Schmidheiny's fascination with Hodler grew, so he was influenced by him. The parallels between their characters (...) will doubtless have played a role in this, too.»

A combination of robust character and surprising sensitivity – this shaped Max Schmidheiny's actions throughout his life. As a young man, though, he, unlike his older brother Ernst, could have chosen an easier life. He was born in Heerbrugg on 3 April 1908 and attended the local elementary school, with a break in Berne during the war, when his father Ernst was head of the Federal Barter Office. In 1921, he entered the cantonal high school in Trogen – where he enrolled in Latin, a normal part of any classical education at the time, but was granted a heartfelt «Christmas wish» and allowed to drop it («I was always good at mathematics») – and passed his high school leaving examination in 1926.

Max Schmidheiny had only one goal: «To follow in my father's footsteps, who had spoken so much about his business». Ernst senior, however, wanted his younger son to take a degree at the Swiss Institute of Technology in Zurich first, which Max did – notwithstanding inner reservations, though without any «difficulties», as he put it. He graduated with a diploma in mechanical engineering in 1931. But then he wanted to get into business, even while doing his military service. The twenty-three-year-old officer in the artillery began to sense that his presence was urgently needed in life at home and in the family business, rocked by the Great Depression, especially as his father was often abroad. The latter was looking after his business in the Middle East, his new home. In 1931 he had moved

his domicile to Egypt, a country that he felt was unscathed and out of harm's way; as he told his sons: «Even if Europe sinks into chaos, Egypt will survive.» He would not live to see how wrong he was.

### **Head of the business at twenty-three**

As Max Schmidheiny acknowledged looking back over his life in 1976, the economic crisis of the 1930s left an «indelible impression. The effects of the Depression on our country became stronger and stronger. Unemployment and bankruptcies rose from month to month. (...) State welfare services and provident funds were utterly incapable of satisfying the exigencies of mass unemployment. Many firms lived off their capital and shrinking reserves until their hour came. Despite their good intentions, the authorities and the National Bank of Switzerland were utterly helpless in the face of the catastrophic developments and obvious signs of spreading political and social disintegration. Some of the blame for the rapid worsening of the situation was due to widespread economic inflexibility, in particular the credit policies of some banks and the official policy of the central bank».

The companies that Ernst Schmidheiny senior built up were also in very great difficulties. And when he died in that fatal accident in the Sinai Desert on 15 March 1935, Max and his brother «had to take on enormous responsibilities overnight» as Max wrote in his «Memories of bleak years». By that point, however, the young industrialist had already gathered a lot of experience in the running of several firms. At the age of 23 he had already started to take charge of his father's balance sheets: «I started to put his accounting in order. Virtually nothing

had been committed to writing. He kept everything in his head, had a tiny office and wrote all his correspondence by hand.»

The task for which the son now assumed responsibility was not easy. To gain a proper insight and authority in the empire his father had built up took more than entrepreneurial spirit and managerial talent, it also required grasp of the business. Max Schmidheiny had been acquiring this since 1932 – starting, as the Schmidheiny did, from the bottom in his chosen field, the cement business, and working his way up. For a year he worked in the *Eerste Nederlandsche Cement Industrie* in Maastricht, the city that was to give its name to the European Treaties sixty years later. «Holderbank» had bought the local cement factory in 1926. Max Schmidheiny worked as a crane-driver, in the quarries and in all sorts of positions in the company for a salary of 200 guilders a month. This was hardly a princely sum, «but I could live on it», he said later, «and was even able to put something aside».

After the death of his father, Max Schmidheiny and his elder brother Ernst together took all major decisions affecting the family businesses, including, of course, building up and expanding the «Holderbank». But for the moment his essential creative energies and entrepreneurial enthusiasm were reserved for *Eternit AG* in Niederurten. After 1919 the company had started to recover from the shock of World War I and expanded anew in the 1920s. Growth came to a halt with the crisis of 1929; catastrophe was around the corner. The report of *Eternit's* activities in 1933 reads laconically: «For lack of orders, the firm cannot produce at full capacity. In some weeks the machine does not run at all and our people have to go on the dole.»

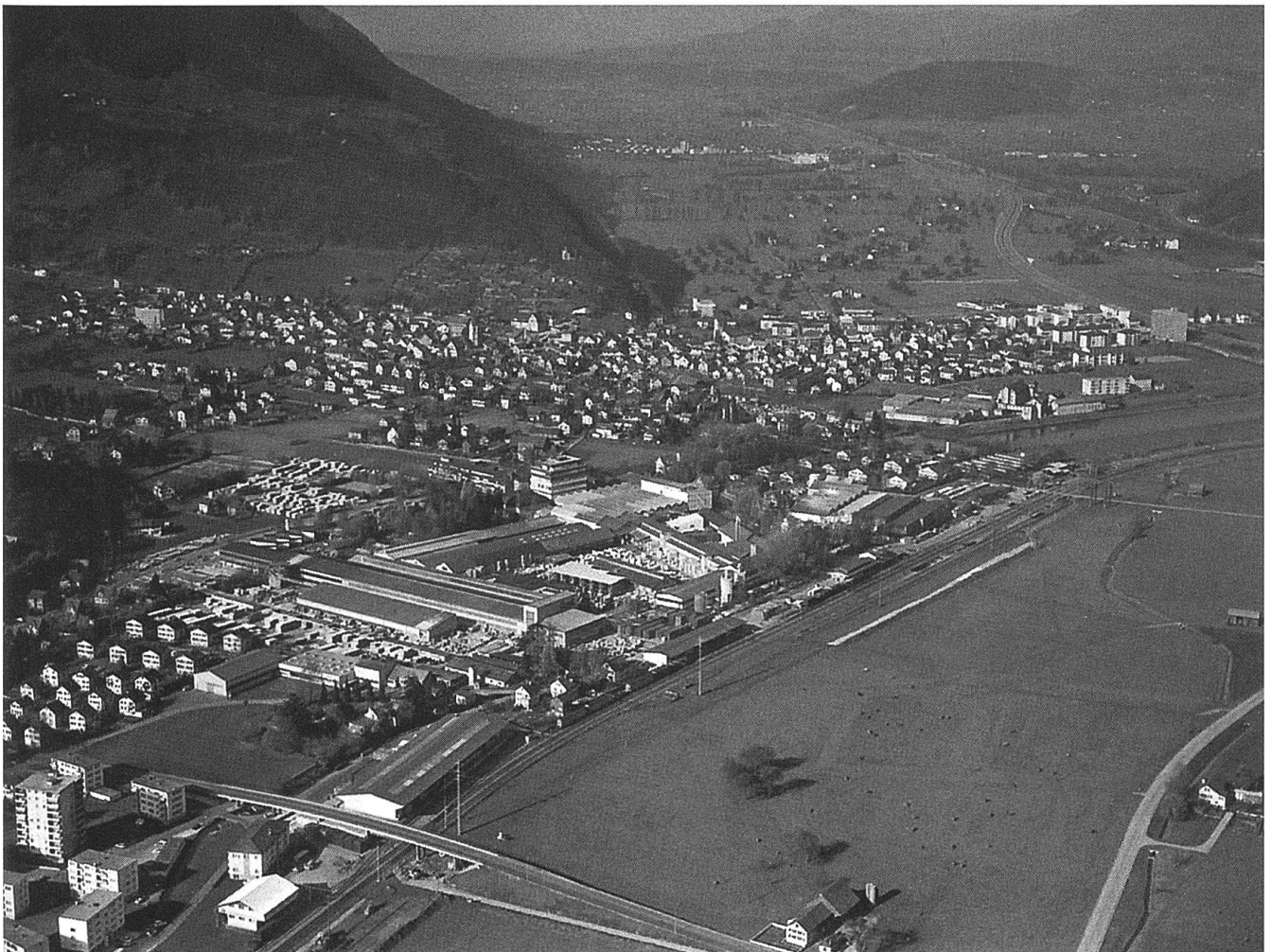
In that year, 1933 – shortly before his twenty-fifth birthday – Max Schmidheiny took over the running of the Niederurnen company. In 1934, he was officially appointed managing director. On account of his youth, he came into conflict with the existing management, which was a generation older than he was. As he noted, «By the nature of things, our views on company management can hardly agree in all points. While appreciative of tradition, which, however, resulted in an increasingly catastrophic decline in sales in most of the years preceding my arrival, (...) my goal must be to break with (...) former practices. It is obvious that to survive here we must grow. Looking at it this way, my youth is an advantage: for, which young person is not convinced that he can do things better than his elders?»

*The Eternit factory in Niederurnen, 1978*

Max Schmidheiny did eventually overcome the crisis, and the building material that had already been dubbed «Eternix» once again became «Eternit». To achieve this, the young industrialist had to do everything in his power, and not just at managerial level: «At times I must get out and sell Eternit pipes myself, as we still have to build up a proper team of sales representatives. More than once I have been put in my place by people who are not interested in products which have not been used for at least fifty years.»

### **Contacts with both warring parties**

In the following years, with enthusiasm and a thirst for adventure, Max Schmidheiny devoted a large part of his entrepreneurial creativity to the family's investments abroad – in the



Middle East, Belgium and Germany. It was not always easy to honour all contracts: in the 1930s, the storm clouds of the Second World War were already gathering on the horizon. The family had interests in opposing camps, both in allied countries and in Nazi Germany's sphere of influence. With great diplomacy Max Schmidheiny managed to reach agreement and retain contact with both sides, which he was able to put to use in the service of his country during the Second World War. As a result of a kidney disease, the artillery officer was exempt from military service in 1942. This enabled him to assume another public responsibility: the government appointed him, as it had his father before him, to the committee on national provisioning.

Max Schmidheiny was one of those rare people able to commute between the fronts when borders were hermetically sealed for others. As he admitted later, during the war he had «acquaintances among the Nazis» who arranged for him to travel in areas under German occupation. He assured the British that he travelled to Germany and Belgium only to visit his factories there. Thus, the British for their part made it possible for him to visit the Middle East.

In Belgium and Germany Max Schmidheiny had to take care of the family's cement and Eternit companies. In Brussels there was also the *Atlanta*. This particular headache was a legacy of unfortunate property transactions that his father had been dragged into. Max Schmidheiny had been forced to take an interest in the hotel even as he was finding his feet in Maastricht. He bought it in 1934 – or more accurately: had to buy it to avoid greater financial losses. When the Germans occupied Brussels in 1940, General Alexander von Falkenhausen,

head of the military government in Belgium and northern France, chose of all places the *Atlanta* as his headquarters – one reason for Max Schmidheiny's conflict with the Nazi bureaucracy on his frequent business trips.

Travel in German-occupied territory and in Germany during the Second World War was not without risk. But Max Schmidheiny insisted on personally supervising his businesses in times of trouble. More than once he was surprised by allied air-raids – above all on that memorable 31 May 1942, when the British launched their notorious «thousand bomber raid» against Cologne. Schmidheiny had just boarded one of the few south-bound trains still running. After two kilometres it came to a halt, from which distance the Swiss industrialist followed the awful spectacle.

Schmidheiny also experienced air-raids on his trips to Berlin, though these were minor. The Heerbrugg industrialist had been associated with the capital of the Reich since 1940, when he succeeded his brother Ernst as a deputy chairman of the supervisory board of *Eternit AG Berlin*. Ernst senior played a leading role in founding the company in 1929. An *Eternit* factory erected on the Teltow Canal in Rudow started producing slabs in 1930 and pipes the following year. Production ceased completely during the war: asbestos was needed for other purposes in Germany, such as submarine sealings.

#### **An «act of madness» in Berlin**

In 1945 the Soviets carried off the plant and equipment in Rudow; the company, however, continued to exist as a legal entity. In 1948, Max Schmidheiny became chairman of the supervisory board, but «his fellow



*Max Schmidheiny at Eternit, Berlin, shortly after his 70th birthday. Two years later, on 11 July 1980, the City of Berlin awarded him the Ernst Reuter Medal.*

board members were not inclined to rebuild a company that had lost all its physical assets. (...) They lacked any real confidence in the political and economic future of post-war Germany», as a special edition of the «*Eternit Hauspost*», the company newsletter, put it twenty years later. The scepticism of his German business partners was understandable: the Cold War between West and East had reached freezing point. In an effort to drive the western powers out of the former capital of the Reich, the Soviets began their blockade of Berlin in June 1948. The Americans replied with their famous airlift, which eventually saved West Berlin. In the summer of this decisive year, however, the success of the West's response still lay in the future. At this point, Max Schmidheiny started collecting the capital to rebuild the Rudow operation, contributing generously himself – «a million», to quote him. Work on the new factory started in 1949, right on the border to the eastern sector.

In 1948, and even a year later, critical voices condemned Max Schmidheiny's action as «an act of madness». For Schmidheiny, however, saving the Rudow factory in Berlin was a matter of political conviction: »*Eternit* in Berlin means more to me than just an investment. It is a vital and growing expression of a conviction, a declaration of faith» he declared in 1979 in his speech on the occasion of the 50th anniversary of *Eternit AG Berlin*. He continued: «Thanks to this conviction, neither the building of the Wall in 1961 nor the invasion of Czechoslovakia in 1968 caused me to waver in my commitment to Berlin. West Berlin was then and is now an outpost of liberty.» Max Schmidheiny also saw to it that the headquarters of the *Eternit Group* in Germany remained in Berlin, even though in time a number of

modern production facilities were built in the Federal Republic.

Max Schmidheiny was chairman of the supervisory board of *Eternit Berlin* for 32 years until his retirement on 11 July 1980, when he was elected honorary chairman. On the same day he was awarded another honour, one of the greatest among the many received in a long career: on behalf of Mayor Dieter Stobbe and the entire Senate he was presented with the *Ernst Reuter Medal*, the highest award of the City of Berlin.

### **Historic meeting in Cairo**

Max Schmidheiny's business career in the Middle East was even more adventurous and eventful. Ernst, his father, had built up large companies in Egypt, the country he was particularly attached to, and in Lebanon. After his father's death in 1935 he, the younger son, had to assume responsibility for these operations. He was appointed managing director of the *Société Egyptienne de Ciment Portland Tourah-Le Caire* and of the *Société des Ciments Libanais Chekka*. As such, he had to fight a few battles with difficult local notables, «veritable pashas of the good old days», as well as foreign financiers in Egypt. He managed to overcome all adversity and keep the manufacturing and distribution costs of the local factories so low that from 1935 onwards it was no longer a paying proposition to import cement into Egypt. This helped generate local self-financing, which in turn facilitated improvement in manufacturing operations. A factory was built to produce paper sacks, a foundry was opened and eventually the company acquired its own transport fleet.

The times worked to the advantage of the company. The Italian Abyssinian Campaign from 1936 to 1941 and the ensuing strengthening of British

defences along the Suez Canal increased demand for cement in the Nile Valley. Demand rose further from 1939 onwards. As Max Schmidheiny recorded later, large quantities of *Tourah* cement were sent «especially (...) to the El Alamein region, where (...) the British defences played a decisive role in stopping Rommel's army from advancing towards Alexandria and the Suez Canal». With hindsight, this assessment is correct. At the time, however, it did not seem as though the Commonwealth troops and *Tourah* cement together would be able to halt the onslaught of the German Africa Corps.

The fluctuating fortunes of war in Cyrenaica between early 1941 and May 1943 are now part of history. Max Schmidheiny lived through these events at close quarters. For, as we have seen, during the war he insisted on supervising his business operations personally, which applied to the Middle East, too. This was all the more so in the critical year of 1942, when reports reached Switzerland that Rommel would soon enter the Egyptian capital. It seemed that Max Schmidheiny's presence was needed to save what could be saved of *Tourah*.

Getting there was an adventure in itself – part of the way in German military aircraft on a German visa, then by train and car through Bulgaria, Turkey and Syria, and finally from there to Cairo with allied papers, where panic had broken out in July 1942. The world had decided – prematurely – that Britain had lost the war in North Africa. A fascinating interlude began for Max Schmidheiny. In later years he liked to introduce his account of the time with the sentence: «We were expecting Rommel, and Churchill showed up.» The Swiss industrialist was sitting with a group of British officers in his firm's canteen, when the

prime minister suddenly turned up from London and joined the officers. He had unexpectedly decided to visit the theatre of war in Egypt to consult with Jan Smuts, the South African prime minister, on crucial decisions. So crucial, in fact, that they decided the war in the Mediterranean: General Auchinleck, the British Supreme Commander in the Middle East, who was obviously incapable of dealing with Rommel, was replaced by General Alexander. General Montgomery was appointed Commander-in-Chief of the Eighth Army.

At the end of 1945, Max Schmidheiny returned to Cairo for the first time after the war, this time with Allied Air Transport command. On inspecting the plant, he decided to expand and modernize the *Tourah* operations so as to greatly increase production capacity. In 1952, *Tourah* and *Helwan* together founded the *Alexandria Portland Cement Factory*, which was particularly well situated for exports, and the *Sudan Portland Cement Company Ltd.* with a factory at Atbara on the Nile about 300 kilometres north of Khartoum. «Thanks to foreign investment», Max Schmidheiny wrote looking back in 1984, «the country was not only self-sufficient in cement, but also able to export large quantities. (...) Under the technical and commercial management of about two dozen foreign employees, the three cement plants and their branches provided a livelihood for about 2500 Egyptian workers.»

### **Nasser's coup and nationalization**

From 1952 onwards, political uncertainty began to overshadow the economic recovery of the Egyptian companies. King Farouk's unpopular and corrupt government was overthrown in 1952 and a republic declared

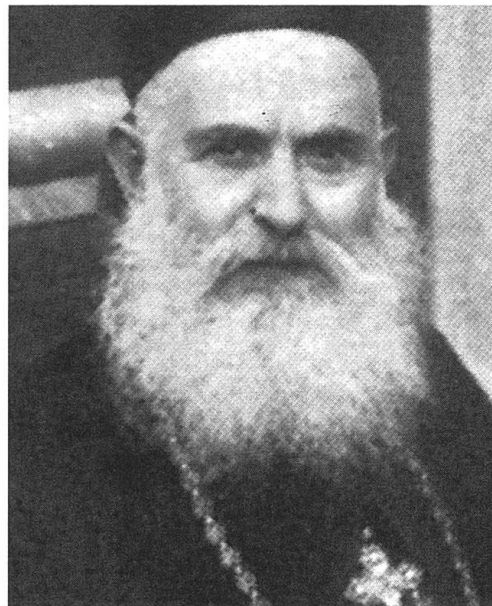
the following year. After seizing power, Colonel Gamal Abdel Nasser nationalized the Suez Canal on 26 July 1956. In October the Israelis, British and French marched on Cairo, a lightning campaign lamentably broken off. Nasser's indirect response was the confiscation of all foreign companies in Egypt, including, of course, the Schmidheiny cement works. On 20 July 1961, the government published Decree No. 117, which transferred to the state the entire property of 52 companies, including the «Portland Cement Company at Tourah», the «Portland Cement Company at Helwan» and the «Alexandria Company for Portland Cement». In his account of the affair, Max Schmidheiny recorded that in terms of the decree «the existing board of directors was to be regarded as dismissed, and at 11 p.m. on the night of the 20 July the former administrator in Helwan appeared as a government official under police protection and announced that he was the «chairman» and general manager of the nationalized Tourah company. (...) He then ordered two company clerks he had brought with him to draw up a list of all files and dossiers. All keys and spare keys of the filing cabinets and safes had to be handed over».

The question of compensation led to lengthy legal and political skirmishing. Max Schmidheiny was not deceived by any Egyptian ruses and threats. In his report on the affair he later wrote: «For that matter, history teaches us that the only way to deal with dictators is to stand up to them and not to flinch.» The Swiss industrialist acted accordingly. First, he had all *Tourah* assets in banks abroad frozen. Then Schmidheiny ordered the confiscation of a cement grinding mill waiting for shipment in Copenhagen that the nationalized Egyptian plant apparently was in urgent need of.

After this, Cairo was more open to compromise, which was to have a positive effect on the struggle over the *Sudan Portland Cement Company*. In the latter case, Max Schmidheiny was determined to do all he could to prevent this company from being nationalized as well. The Egyptian affair caused a stir in Switzerland and throughout the world. The Swiss government resorted to diplomatic means that ended in lengthy, tough negotiations between Switzerland and Egypt, in which the then ambassador and subsequent secretary of state, Raymond Probst, played a crucial role. In 1964, the two sides reached what Schmidheiny called an «amicable agreement» on Tourah: the original owners ultimately received «an amount equal to between only 30 and 40 percent of what would have been fair compensation».

#### «I want Schmidheiny»

Developments took a happier turn at another Schmidheiny company in the Middle East, the cement factory in *Chekka*, a small Lebanese seaside resort a few kilometres south of Tripoli. In 1935, the French High Commissioner and a decrepit, sleepy manage-



*In April 1942, His Beatitude, Patriarch Antoine of Antioch and All the Orient presented his «friend Mr Max Schmidheiny» his portrait as a sign of his «affection». The patriarch held the formal position of «Delegate for life» of the Société des Ciments Libanais Chekka.*

ment initially made life difficult for the Swiss industrialist. Eventually, though, Max Schmidheiny got his way with the help of the Swiss consul, a man versed in the secrets of the country – and the support of the Patriarch of Antioch («and All the Orient», to give him his full title), who had the formal position of «delegate for life». Ernst Schmidheiny senior had already had dealings with His Beatitude, who extended his favour to son Max – for money, of course: 50 pounds a month in gold coins, a sum that «His Blessedness» converted at the black-market rate during the Second World War...

Max Schmidheiny visited the factory in *Chekka* regularly between 1939 and 1945. The route to Egypt ran through Lebanon. However, after 1941 it was not quite certain who was in charge: the French, who still felt they were running the country or the (militarily more important) Commonwealth occupation forces. Relations between the two were tense, which almost proved to be Schmidheiny's undoing. In 1942, on his way to his operations in *Chekka*, he was arrested without much ado by the French police as a suspicious foreigner and transferred to the military prison in Beirut. Eventually, he was rescued by an old acquaintance, an Australian who in civilian life was the chairman of one of the leading cement companies in his country, but in the army was a colonel and commander of one of the regiments at Tobruk that for months had withstood the onslaught of the Italians and then of Rommel's Africa Corps. He appeared at the gates of the French barracks with two tanks and bellowed: «I want Schmidheiny!»

For Max Schmidheiny this arrest was just an interlude in what he admitted was a fascinating Lebanese adventure. Since the 1930s he had been acquainted with the business practices of

the Middle East and knew how to deal with the respective rulers and the various clans. After the war, the company in *Chekka* expanded accordingly – notwithstanding unfavourable developments in local politics. The company generated its own finance for expansion, acquired its own hydroelectric power station and continued to operate during the turmoil in later years.

### **Commander of the Order of the Cedar**

*Chekka* was the base from which Max Schmidheiny started to expand his industrial activities in the Arab world in the early 1950s. *Eternit S.A.L. Chekka* was founded on 5 December 1950 and a temporary installation came on stream in 1951. As it became apparent that the Arab countries possessed enormous oil wealth, business started to boom. Max Schmidheiny reacted immediately: in 1956 *Chekka's* capital was increased to finance a modern factory for Eternit pipes, since a major requirement of the oil industry was giant water pipes.

In its early phase the Lebanese factory exported to the Gulf. Later, factories were built in other countries. Max Schmidheiny always made a point of letting local businessmen acquire a majority holding in any new company, while ensuring an indispensable Swiss role both through a substantial minority holding and, above all, through technical know how and efficient management structures. *Amiantit S.A.L. Beyrouth* was founded in 1967. Companies with the same name followed in Libya, Saudi Arabia, Dubai, Jordan and Oman. New factories were established in Tripoli, Jeddah, Jubai, Dammam, Abu Dhabi, Amman, Muscat and Istanbul. Eternit became a market leader through the Middle East, above all in pipe production.



Throughout his life Max Schmidheiny took pride in recounting his successes and his entire involvement in the Middle East and North Africa, and the personal effort that he had invested in this region on numerous trips and which continued after the war. With pride he would open for visitors the door of a built-in cupboard in his office in Heerbrugg to reveal a magnificent calligraphic document hanging on the inside: the certificate appointing him *Commander of the Order of the Cedar*, an honour he received from President Charles H elou of Lebanon in 1969.

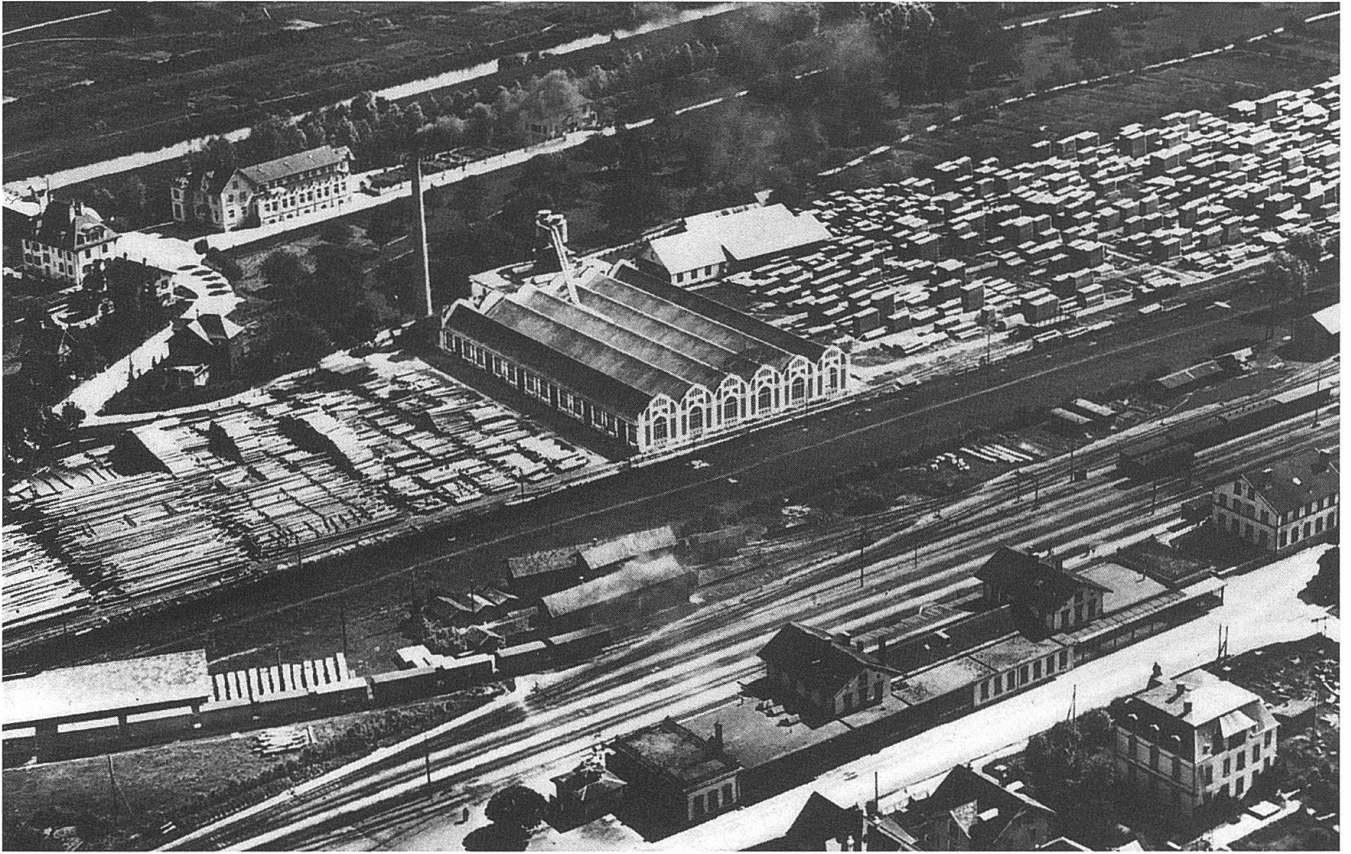
### Interlude in wood

Germany, Belgium, the Middle East and North Africa: in these regions Max Schmidheiny had dealt in cement and cement products, the family's traditional businesses. But he had already long been practising what is now called diversification. He himself did

not care for the term, and tended to speak condescendingly of colleagues that tried to shift the focus of their business or expand into other fields. In reality, however, building materials alone were not enough to satisfy this active, enterprising industrialist. In this respect, too, he was a «traveller between worlds» – the worlds of very different industries.

His father had left him a diverse legacy, including the *HIAG* company, the *Holzindustrie St. Margrethen AG*, of which he became chairman in 1934. This posed an unusual challenge. At the time, the «*Terza*» match factory at Unterterzen on Lake Walen was fighting for survival. Originally, the local municipality had founded the company to provide employment in the town, but had difficulty making a going concern of it. In 1938, Schmidheiny agreed to buy the bankrupt business and merge it with *HIAG* – on one condition: to start producing quality

*On 7 June 1969, President Charles H elou of Lebanon named the Swiss industrialist Max Schmidheiny «Commander of the Order of the Cedar» and presented him with a magnificent certificate to this effect.*



*In 1934 Max Schmidheiny became chairman of the board of directors of the Holzindustrie AG St. Margrethen (HIAG) – a company that had been saved by his father, Ernst Schmidheiny. This large operation ...*

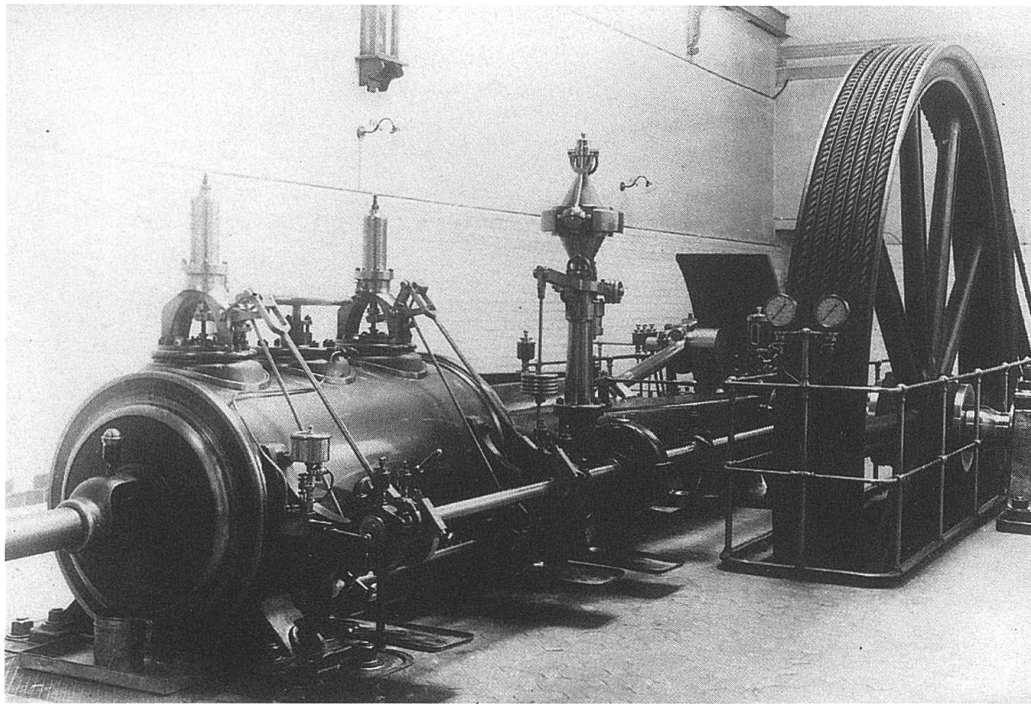
matches. This rescue operation may have seemed madness, for at that time the Swedes held an international monopoly of sorts in matches. But it was this that motivated him: «The cement business had shown me the strengths and weaknesses of a small outsider.» He accepted the challenge, and eventually his mighty Scandina-

vian competitor signed an agreement on quotas with him.

The HIAG group as a whole gradually widened its range of activities, overcoming the difficulties of the Second World War and a disastrous fire that completely destroyed the main plant in St. Margrethen in August 1946. In 1948 the factory reopened as

*... was destroyed by fire in 1946 and had to be rebuilt from scratch.*





*Until 1946 an old, hulking great steam engine produced all the power for the entire HIAG facility in St. Margrethen.*

one of the most modern and most productive of its kind. Through the acquisition of related manufacturing and commercial operations, the group became the market leader in the field of fibre board, chip board and parquet flooring. *HIAG* began to export its knowledge systematically, erecting turnkey plants abroad in which the company retained a holding. At the beginning of the 1970s, Max Schmidheiny withdrew from the wood busi-

ness. But it remained within the wider family, as *HIAG* was bought by Gustav E. Grisard, who was married to Max Schmidheiny's niece Annette, née Schrafl.

**Wild-Heerbrugg: Max Schmidheiny's «favourite child»**

Max Schmidheiny took diversification a step further with his involvement in a company that was close geographically, but whose business was



*Until 1993, the administrative office of the Holzindustrie AG St. Margrethen (HIAG) was housed in a modest office building.*

not remotely connected with any building material: *Heinrich Wild's geodätischer Instrumente*, headquartered in Heerbrugg, at the foot of the hill on which he lived. As an artillery officer, optical instruments of all types must have held a particular attraction for him, and, as Arnold Semadeni, at the time chief executive officer, put it in 1979, *Wild* became «one of Max Schmidheiny's favourite children».

This company was also going through a difficult phase when the young businessman took charge in 1933. After the founder, *Wild*, had left the company in anger and joined the Kern company in Aarau, Max Schmidheiny bought his shares, which, together with his father's holding, gave him the majority. His uncle Jakob remained chairman in name, but Max Schmidheiny made the decisions. He remained deputy chairman until 1954, when he became chairman, a position he held until 1983. Looking back later, he remarked that «until

1935 people kept talking of liquidation»; then the range of products was expanded, and as demand grew for modern surveying and photogrammetric instruments, the company's situation started to improve noticeably.

Once again, political developments worked to the advantage of a Schmidheiny firm. Military forces around the world were taking an increasing interest in precision optics, and *Wild's* instruments were of the highest quality. The German army was ordering theodolites for its *artillery* long before Adolf Hitler appeared on the scene – and long before the Swiss military had recognized the potential of *Wild* products. In the first phase of the Second World War, the Heerbrugg company sold optical instruments to both the German and the British armies. There were lots of opportunities for this, of course. Although Germany had answered the allied blockade of Switzerland with a counterblockade, Germany did not have, as Oswald Inglin de-

*The committee of the board of directors of Wild Heerbrugg AG in the 1950s (from left to right): Heinrich Spoerri, general manager Albert Schmidheini, Max Schmidheiny, at the time still formally deputy chairman.*



scribes in his book «Der stille Krieg» (The Silent War), «a tradition of blockades. As a typical land power, it lacked the means to enforce this systematically and effectively at sea». Thus, Swiss exports crossed the Italian border, from where they went by ship to the USA or the UK, or via unoccupied France to North Africa and on to the allied forces. Only after the German armies marched into Vichy France in 1942 and established a government of occupation in Italy in 1943 was Switzerland completely cut off.

Once the war was over, *Wild* had to refocus its activities, and the decision was taken to concentrate on microscopes. A firm in Allschwil that *Wild* acquired in 1947, and relocated to Mels in 1963, was already specialized in this field. The factories in Heerbrugg, Rebstein and Oberriet manufactured optical instruments and tripods for the most part. Max Schmidheiny later put this period in a nutshell: «There were hardly any problems in the 1950s and 1960s. (...) It was a good time.» The production and administrative facilities expanded and a number of branches and sales networks were established abroad.

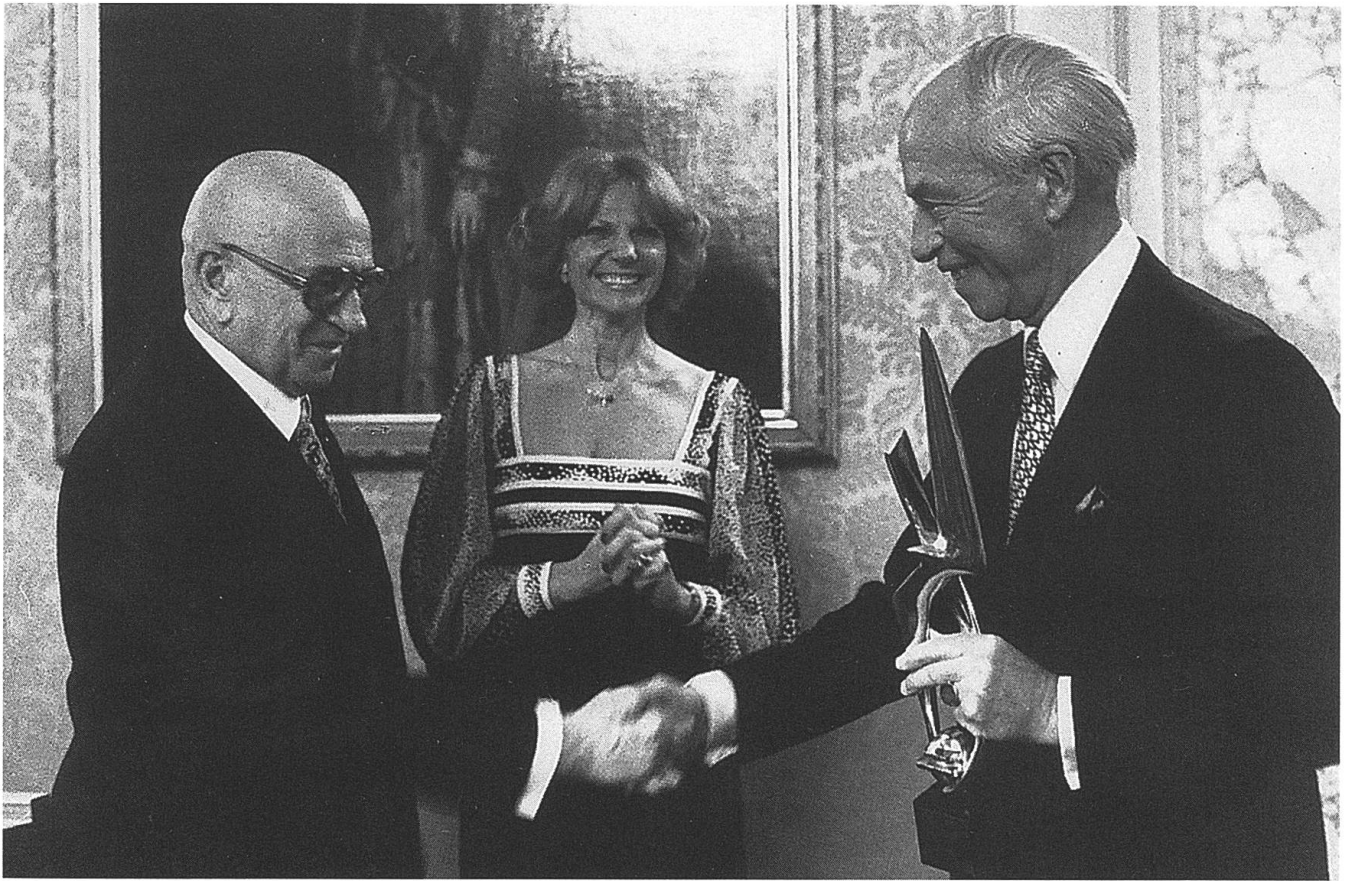
This optimism was dented by the Swiss government's decision to restrict the use of foreign labour in Switzerland and so pre-empt a referendum on foreign workers organized by James Schwarzenbach. This hit the Heerbrugg company hard. On 19 June 1971 – the 50th anniversary of the founding of the firm – Max Schmidheiny gave a speech that caused an enormous stir by criticizing the Swiss government: «Although, on the one hand, we can look back on the rapid growth of our company with satisfaction, on the other hand, we follow with growing concern the effects of a labour policy adopted by the authorities that threatens to gradually undo what

has been achieved. I will not hesitate to speak of a form of economic exploitation. (...) It is nothing short of economic exploitation (...) when hundreds of well-paying jobs in a thoroughly rationalized manufacturing company cannot be filled because of artificially created shortages in the labour market, when, for this reason, existing productive capacity that has been built up with enormous investment cannot be used and is going to waste.»

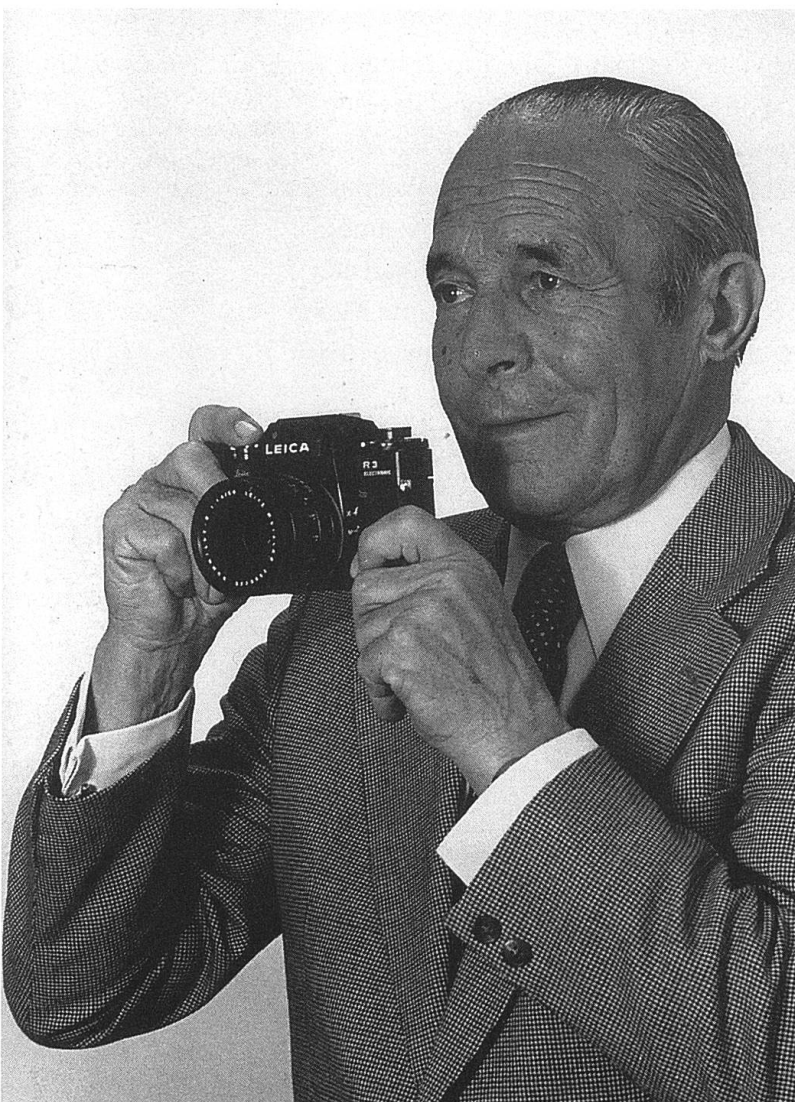
Max Schmidheiny was harshly criticized for his remarks on migrant labour policies, particularly in Liberal Party circles. Nello Celio, at the time head of the Swiss Department of Finance and Customs, labelled his views «political nonsense». *Wild* drew its own conclusions from this difficult situation in the Swiss labour market and transferred part of its production abroad. A subsidiary, *Wild Heerbrugg GmbH Kärnten*, was founded in Völkermarkt, Austria, in 1970, and a second branch was opened in Singapore in 1971. By the end of the 1970s, the company and its affiliates had a staff of 3000; about 500 employees commuted across the Austrian border every day to work in factories producing optical instruments on the Swiss side of the Rhine.

At that time *Wild AG* was at the height of its international reputation. On 8 March 1979, Edgar Faure, former prime minister of France, presented Max Schmidheiny with a sort of «Oscar for industry», the *Trophée Internationale de l'Industrie* of the *Institut International de Promotion et de Prestige*, an associate organization of UNESCO. *Wild* was awarded the trophy for the quality precision and ongoing development of its products and, above all, for creative research.

By the time it received the award, however, *Wild* was already involved in



8 March 1979: The former French prime minister, Edgar Faure, congratulates Max Schmidheiny on the «Trophée International» awarded to him by the «Institut International de Promotion et Prestige» of UNESCO. Gisèle Rutmann (centre), President of the Institute, presented the prize to the Heerbrugg industrialist for the enterprising and technical achievements of the Wild company.



Max Kreis, graduate engineer with a degree in mathematics and Adda Schmidheiny's first husband, appointed technical director of Wild-Heerbrugg in 1949, and Albert Schmidheini's successor as head of the management board from 1961 to 1974, chairman of the board of directors of Leitz-Wetzlar GmbH until 1983.



a company that would be a source of headaches for many years. In 1971 *Wild* had signed a joint venture with *Leitz-Wetzlar*, and later acquired a majority of the shares in the German company. The merger was largely the doing of Max Kreis, a mechanical engineer and student friend of Max Schmidheiny's who had been technical director of *Wild-Heerbrugg* since 1949. In 1979, Kreis was still speaking optimistically of «various opportunities of German-Swiss collaboration in industrial interests». But his hopes were not fulfilled. In *Leitz* Wild had acquired a company in need of restructuring, one that – in Max Schmidheiny's subsequent sober assessment – «had done good work in research and development but was badly managed and manufactured products that the market did not want». The firm's structures were old-fashioned, and internal problems prevented a speedy merger of the Swiss and German operations. This was one of the reasons

why the company failed to recognize the direction of technological developments and adapt in time. *Wild-Heerbrugg* had to share all Wetzlar's problems, and, as a result, became a problem case itself, one that had not been properly solved by the time Max Schmidheiny withdrew from active management of the company.

*Ernst Leitz GmbH in Wetzlar ca. 1972, about the time Wild-Heerbrugg took a stake in it.*

#### **Concern about energy supplies**

Another legacy of Max Schmidheiny's father was permanent concern about adequate energy supplies for Switzerland and, above all, for the Rhine Valley, his home region. The experience of the Second World War strengthened his resolve: they received only inadequate supplies of coal for cement production, and at times none at all. The Heerbrugg industrialist felt obliged to resort to electricity and harness what water sources he could find in the Canton of St Gallen and, in particular, the Sarganserland region to produce hydroelectric power. Shortly

after the war, a utility, the *Nordostschweizerische Kraftwerke*, had conducted studies of the Rhine Valley, but came to the conclusion that the geology was too precarious and discontinued its work. A private entrepreneur seized the opportunity: Max Schmidheiny. He invested more than one million Swiss francs in studies for a new project. One variant was implemented, and the power station came on stream in 1978. The new utility, *Kraftwerke Sarganserland*, was able to meet peak energy demands for three to four hours a day. Approval was subject to the provision that the utility ensured that there was always a certain minimum amount of water in the Tamina Gorge to feed the hot springs upon which the communities of Pfäfers and Ragaz depended.

A more risky energy venture was Swiss oil research. The Suez Crisis was a crucial experience. Schmidheiny felt it was important «to do something to lessen Switzerland's dependence on foreign sources of energy». He wanted to promote oil research by an independent body in Switzerland. At first his views met with distrust among the authorities and in industry, who ridiculed him as a

voice in the wilderness. Eventually, after painfully slow progress as an «itinerant preacher», as he later put it, he had collected sufficient support and money – «the rewards of courage», wrote the Düsseldorf «Handelsblatt» with a mixture of criticism and admiration. *Swisspetrol Holding AG*, a financial and management company with headquarters in Zug, was founded in 1959, and Max Schmidheiny was its chairman until 1983.

It was impossible not to involve foreign oil companies, although this immediately drew dirty looks from various quarters. Foreign involvement should not mean that possible energy sources ended up in non-Swiss ownership. In reality, there was little danger of this, for lengthy, costly drilling in different locations bore few commercially exploitable results. The dream of some newspapers that were already drivelling on about «filling stations selling Swiss petrol» came to nought.

**«Favourable constellation for success» at Brown Boveri**

Cement and Eternit, petrol and electricity, optics and wood, investments in Switzerland and abroad: one

*Tour of the factory in Baden on the occasion of the 75th anniversary of BBC in 1966: the new chairman Max Schmidheiny accompanied by federal councillor Hans Schaffner.*



would have thought Max Schmidheiny already had enough on his plate. Yet, in the mid-1960s he assumed the chairmanship of *BBC, Brown Boveri & Cie., Baden*. This was a new, extremely demanding challenge. Later, he was to admit that it was «simply too much» for him.

Ernst senior had already had very close relations with *BBC*: in 1912 he was elected to the board of *Motor AG*, an engineering subsidiary of *Brown Boveri & Cie.* Max had got to know Walter Boveri junior, son of the founder of the same name, at a relatively early stage. The two clashed on the board of directors of *Credit Suisse*. The bank was to have invested one million Swiss francs in Schmidheiny's *Swisspetrol*, which was also thinking of issuing dividend rights certificates, at that time a novelty in Switzerland. Boveri reacted to both suggestions with a fit of temper. Apparently he feared that his turbine exports would suffer if Switzerland imported less or no oil...

At the same time, the businessman from Baden seemed impressed by the insolence and unconventionality of his colleague from Heerbrugg. In addition, Boveri was influenced by a horoscope of his private Roman astrologer, Francesco Waldner, who pointed out that Schmidheiny's «constellation» was extremely «favourable for success». The final decision lay with the big banks and the company's management, which was becoming increasingly uneasy about the often bizarre decisions that Boveri was handing down from his Olympian isolation. As Paul Eisenring recalled, «the situation in Baden grew more and more difficult until it became intolerable». National Councillor Eisenring acted as mediator, and after weeks of discussion was influential in convincing the ageing head of the

company that it was time for him to retire. First, Boveri summoned Schmidheiny, seemingly off his own bat. Schmidheiny reacted to the proposal that he join the board of directors with astonishment. But this was only the start: on 13 July 1966, in the 75th year of the company's existence, the Annual General Meeting elected the Heerbrugg industrialist as new chairman of the board of directors. Boveri was given the title of honorary chairman.

Schmidheiny's immediate task was to reorganize the company. According to the future managing director Piero Hummel, the company's organization «no longer functioned. One just did not know enough, whether one was making or losing money» – this in an international company with 75,000 employees and sales of three billion Swiss francs. Schmidheiny restructured the company with the assistance of *McKinsey*, a firm of corporate consultants. Decisive innovations including replacing the former functional organization with a «vertical structure» that distinguished between administration and production. Not everyone approved of the changes, least of all the German subsidiary, *BBC Mannheim*, which began to behave increasingly autonomously, and at times almost as a competitor of the headquarters in Baden. These business tensions between the Germans and the Swiss were compounded by long-standing personal rivalries – Boveri had already clashed with the Mannheim chairman, Kurt Lotz, as Max Schmidheiny would too. The problem of the Mannheim subsidiary would always be at the back of the mind of the new chairman of *BBC*, and he was never quite able to resolve it.

Especially as crucial strategic decisions waiting to be made in Baden demanded management's full attention.

The chairman of *BBC* focused primarily on the generation of electricity. At that time, nuclear energy was regarded as the energy of the future. There was little sign of the vehement opposition that would develop later. «Building reactors for nuclear power stations interests not only *Brown Boveri*, but also most Swiss firms active in the engineering industry» declared Max Schmidheiny in July 1967. In the following years, *BBC* became one of the leading builders of nuclear power stations and placed great importance on this field of activity, too much in fact, as it turned out some years later.

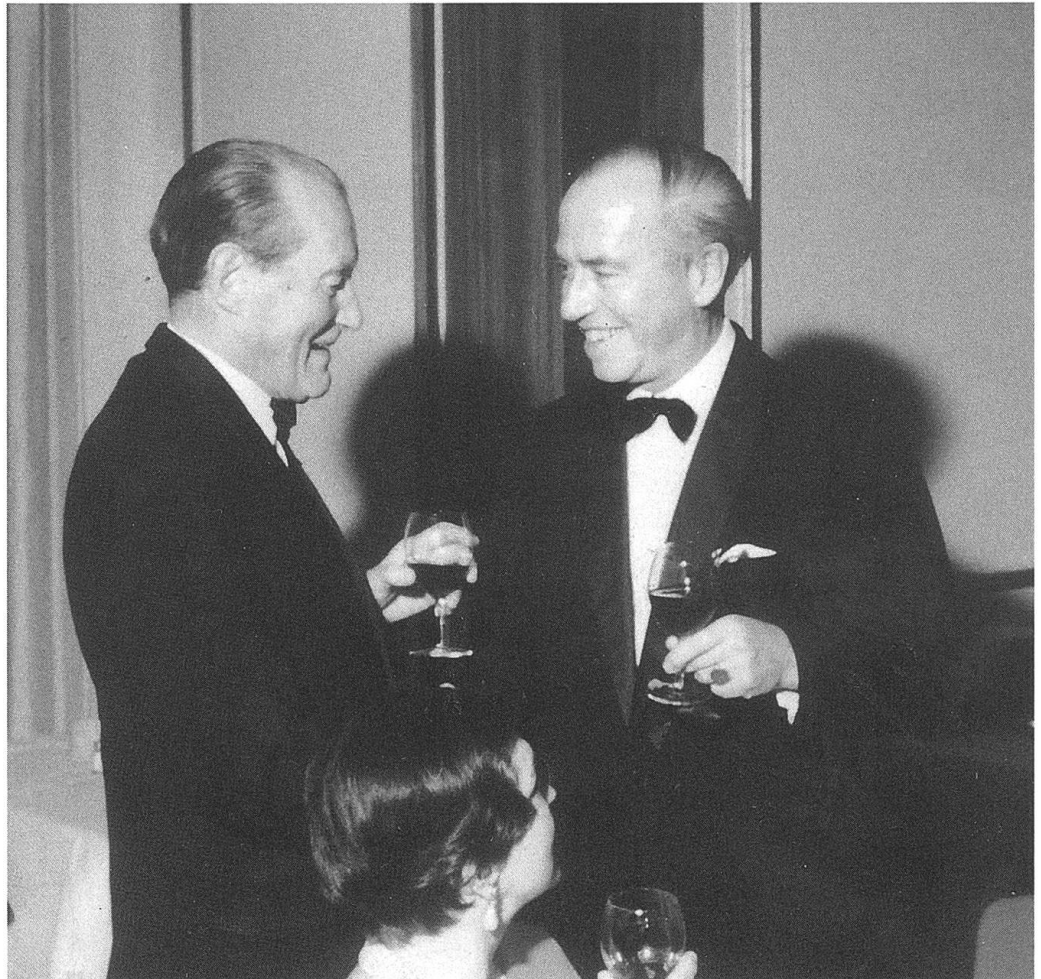
Under Max Schmidheiny's chairmanship, the company's output in its traditional field of electrical engineering machinery rose enormously. The United States, in particular, seemed to offer endless opportunities. At the end of the 1960s – to the intense annoyance and envy of its UK and US

competitors – *BBC* won a contract from the *American Electric Power Company* to build huge power plants driven by large steam turbines capable of producing 1100 MW of electricity, monsters 76 meters long and weighing 4800 tonnes. However, the Baden company decided not to join the *North American Rockwell Corporation* in bidding for an even larger project: the construction of a factory for large-scale turbines, which would have got the Swiss company into the American nuclear power station market. Ultimately, the financial and operating risks involved seemed to be too great, and *BBC* was obliged to withdraw.

#### **Mergers, amalgamations, takeovers**

Max Schmidheiny became increasingly convinced of one point: an individual firm could neither satisfy the growing requirements of the interna-

*Chairman and honorary chairman of BBC toasting each other: Max Schmidheiny and Walter E. Boveri, son of the founder.*



tional market nor keep up with the demand for new developments on its own. To remain competitive it was necessary to concentrate the resources available in Switzerland. On 14 March 1967, a few months after being elected chairman, the Heerbrugg industrialist announced his coup: the merger between *Brown Boveri & Cie* and the *Maschinenfabrik Oerlikon (MFO)*, which had 6000 employees (4200 of them in Switzerland). Walter Boveri had already attempted to do this in 1965, but failed on account of his own unfortunate tactics and the refusal of the *MFO* board of directors, as its chairman, Georges Heberlein, subsequently made abundantly clear. Max Schmidheiny, who had been a member of the same student society as Heberlein, succeeded in his merger bid – or more precisely, «takeover» – creating a company with 82,000 employees.

Max Schmidheiny was faced with two broad criticisms. He answered the charge that the merger ran counter to all liberal principles by pointing to the «arrival of large foreign corporations in the Swiss market», which in their threat to Swiss industry often enjoyed the support of their governments or the advantages of nationalized companies. It was more difficult to deal with the arguments of Swiss industrialists who felt they had lost out and begrudged Max Schmidheiny his coup. He justified his high-handed behaviour by raising the spectre of speculation on the bourse, which he wanted to avoid at all cost: «If I had behaved differently, this could have led to insider dealings which could have endangered the venture.»

Another merger two years later did not go through so quietly and smoothly. The *Société Anonyme des Ateliers de Sécheron* in Geneva (*SAAS*) was one of the leading companies in the Swiss electrical engineering industry.

With a staff of about 1300 skilled workers, it was the largest industrial employer in the small city canton. In the mid-1960s the firm had run into great difficulties; turnover and new orders sank. German and Swiss companies – *Siemens* and *ASEA* – expressed interest in *Sécheron*, but the Swiss banks as majority shareholders favoured the Baden company. After difficult negotiations, influenced not only by *Sécheron's* concern for its survival, but also by considerable animosities between the French- and German-speaking Swiss, agreement was finally reached in autumn 1969.

Max Schmidheiny's term as chairman of *BBC* also included other cooperation and coordination agreements. In 1968, a joint venture with *Sulzer Brothers Winterthur* and their Zurich subsidiary, *Escher Wyss AG*, created the *Turbomaschinen AG* in Zurich, which was, however, short-lived. In July 1969, negotiations with the Swedish company *ASEA* led to an initial, modest agreement – the two families of industrialists, the Schmidheiny's of Heerbrugg and the Wallenbergs of Stockholm had long been on friendly terms.

### **The Hans Schaffner affair**

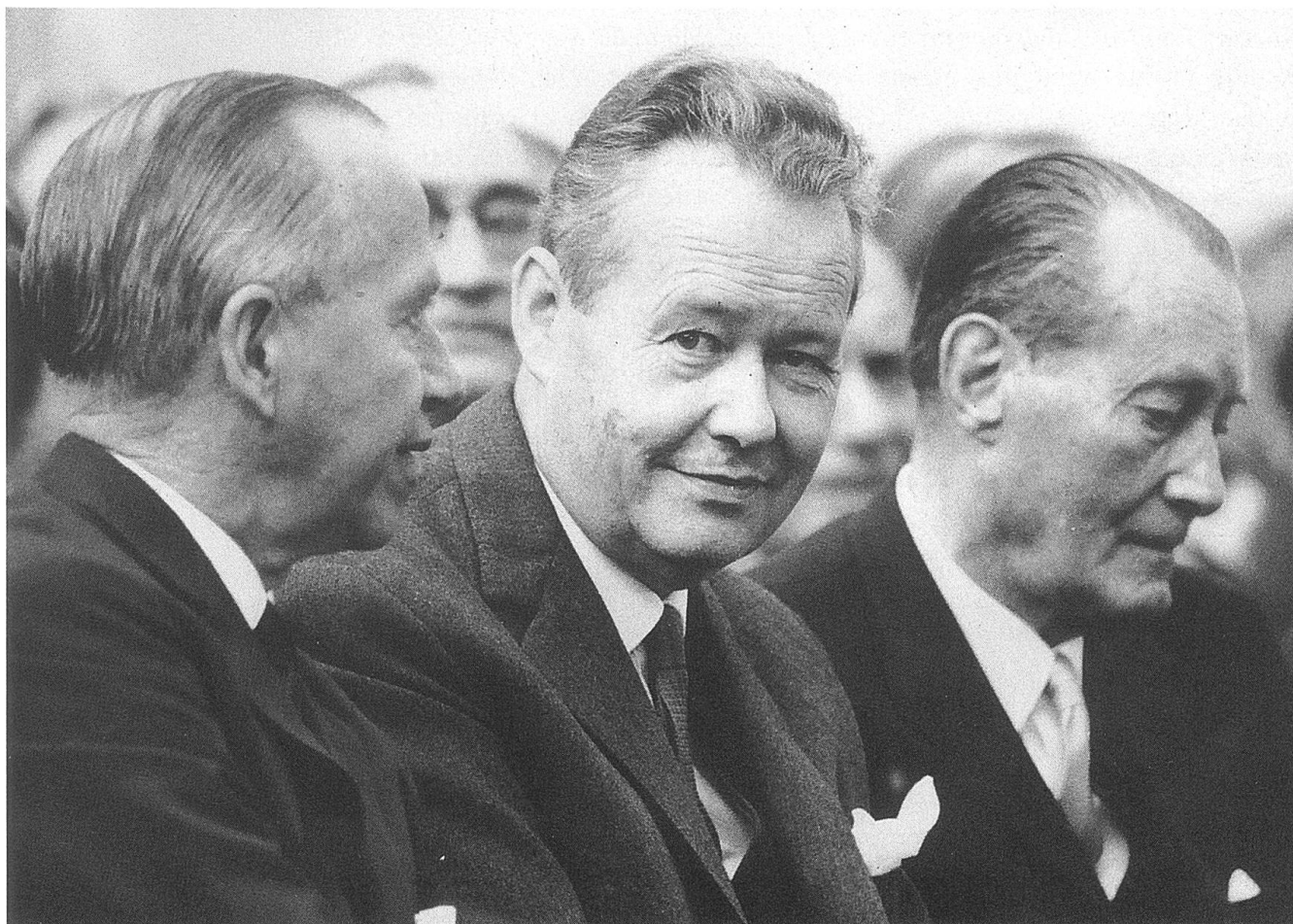
In 1970, Max Schmidheiny felt that the time had come to pass the chairmanship of *BBC* onto someone else's shoulders, as the demands of his family businesses were too great. He spent months looking for his successor. He had chosen Hans Schaffner, a former federal councillor with enormous standing and a wide circle of contacts in Switzerland and abroad such as large companies being extremely useful. But then Schmidheiny experienced «one of the greatest disappointments» of his professional life. As he later admitted: «I made a mistake choosing Schaffner.»

*Federal councillor Hans Schaffner, Chairman Max Schmidheiny, Honorary Chairman Walter E. Boveri, son of the founder of BBC, on the occasion of the 75th anniversary of the company in 1966. In 1970, Hans Schaffner was chosen by Max Schmidheiny as his successor, but withdrew unexpectedly after objections to his candidacy had been raised at the Annual General Meeting.*

At the annual general meeting on 15 July 1970 objections were raised against the nomination of the former federal councillor, which were supported by a small minority: of 602 shareholders, 40 voted against Schaffner. The election of a government official was a thorn in their flesh. In addition, they also wanted to reduce the size of the board of directors. Although the number of opposing votes was very small, both Schmidheiny and Schaffner appeared to lose their self-control. The retiring chairman spoke of a «perfidious attack» and asked the rhetorical question: «Should retiring federal councillors have to enter a monastery?» In a speech after lunch, Schaffner, for his part, responded to the attacks in an offended tone: «If the employees of BBC don't accept me, I won't accept this office; BBC can get along without me.» At some point the fatal remark was made that he, Schaff-

ner, would have no regrets as he rode passed in the Zurich–Berne express «without a stop in Baden». The next day, 16 July, the board of directors of *Brown Boveri* received a letter signed by Hans Schaffner in which he brusquely announced that he would not accept the office of chairman of the company to which he had been elected 24 hours previously. For the press this was a sensation. The *Tages-Anzeiger*, a Zurich daily, ran the headline: «BBC: Topless».

This temporary «topless» had personal consequences for Max Schmidheiny: he had to find a new successor. He finally chose Franz Luterbacher, the managing director of *MFO*. Everything was finally settled after lengthy discussions, and on 7 September 1970 *BBC* elected a new chairman; Max Schmidheiny remained on as deputy chairman until May 1980. This choice, however, was not one of his best. Un-



der Luterbacher *BBC* reached new heights – followed by alarming lows. More than once Schmidheiny wondered whether *BBC* had not «taken the wrong turn» in the early 1970s. The company seemed to have put too many eggs in the electricity basket, oblivious to the signs of the times, which pointed to falling demand for both nuclear and conventional power stations in the industrialized world. More than once, Max Schmidheiny suggested «diversifying into another field» besides large turbines, viz. telecommunications and electronics. However, company insiders assured him that they «had missed the boat». Companies such as *Hasler*, *Autophon* and *Siemens* had such a head start in this field that it was virtually impossible to catch up. «Yet», Schmidheiny mused later, «precisely in this field we could have become a force!»

### **Politics: not a dirty game**

Max Schmidheiny's dealings, whether for *BBC*, *Swisspetrol*, energy matters or his numerous businesses abroad, were, of course, highly political. He acted not only as a businessman but, in the final analysis, also as a «political animal» par excellence, a «politician by choice», as a friend put it, «with a flair for politics, (...) with an unequalled knowledge of the organization of public affairs and of the art of finding political majorities for his concerns».

For Schmidheiny there was no question of whether businessmen should get involved in politics. In 1976 he wrote in the «Frankfurter Allgemeine Zeitung»: «Speaking as a businessman, I have always thought it unfortunate that politics should be regarded as a «dirty game». Nor have I been able to accept the common excuse of too little time as a justification for keeping out of politics. The

influence and operation of the businessman's so-called «iron law of responsibility» goes beyond ensuring the prosperity and survival of his company; it includes his relationship with the public, the state and the community. Seen from this angle, standing aloof from politics is more than benign neglect, more than a form of ignorance about relationships, more than snobbery, than a venial sin.»

In the same article, Schmidheiny admitted that «the simpler structures of small democracies make it easier for businessmen (...) to get involved in active politics. (...) The career of a politician, who can seldom afford to be a career politician, usually starts at the local level, working with the authorities in his community and on the local school and church boards, then in the cantonal parliament and finally, at the very most, in the Swiss parliament in Berne».

This describes Max Schmidheiny's own political career. In his home region, where he was referred to as «Sir Max», he was in his element – deputy chairman of the Heerbrugg school board, local councillor in Balgach and, for two legislative periods, member of the cantonal parliament of St Gallen. He was also the family's representative on the boards of various charities and public works in the Rhine valley and surrounding areas – and also created foundations of his own. After the Second World War he organized and financed the renovation of a home for 60 retarded children in *Oberfeld-Marbach*. In 1967, the village of Balgach opened the *Verahus*, old-age and nursing home next to Castle Grünenstein, in accordance with the wishes and testament of Vera Schmidheiny-Kuster, Max Schmidheiny's mother. After her death in 1964, her children decided to donate their statutory share of her estate towards realizing this charitable

institution. In 1947 Max Schmidheiny created the *Adda Marietta Schmidheiny Foundation*, named after his daughter, to benefit the Schanfigg village of Pagig, at the time in dire need of help. He was later made an honorary citizen of the village. In 1977, the Heerbrugg industrialist made a substantial contribution to the renovation of the *Monastery of Ittingen* near Warth, five kilometres north of Frauenfeld, which was falling into disrepair. His personal initiative was the vital spark that led to the restoration of this unique historical monument and its dedication as an art museum that, in conjunction with commercial farming on the estate, is an economically viable concern.

#### «Sitting around in Berne»

Of course, local and regional matters could not fulfil a man of Max Schmidheiny's abilities. He felt drawn to Berne – to Swiss national politics. In 1959 he stood for the Liberal Party in his native canton, and was elected to parliament on 25 October with the highest number of votes of any member of the Liberal Party. His speeches were, according to a fellow parliamentarian, «to the point, simple and always unconventional», and therefore drew criticism from all sides. The Socialists regarded him as a confirmed «reactionary». Staunch Liberals did not trust him an inch, either: they complained that his vehement defence of cartels, particularly in the cement industry, was at odds with his liberal economic views.

For he had recorded his liberal principle in countless interviews, and called himself a «fanatic supporter of free-market economics». As such, very early in his parliamentary career in Berne he pilloried the agricultural policies of the previous decades as a huge mistake – in a vote that would be

topical today, but was thought absolutely revolutionary at the time. He stated that instead of putting Swiss farming on a healthy footing, it had simply been given tranquillizers, an immediate palliative, but not a cure: «To solve the problem, agriculture has to go through the same process as manufacturing. Units that are uneconomic because of their size must be merged, mechanized and rationalized to raise productivity.»

Max Schmidheiny caused a similar outcry in 1961, when, in keeping with his liberal principles, he attacked the watchmakers' statute, a holy cow that shackled the Swiss watchmaking industry like «a mediaeval guild» and so allowed foreign competition to flourish. He pleaded for freedom of production, which gained him the animosity of both the Left and Right.

He became best known, though, for another surprising position that he took: in 1961, the Liberal politician supported the proposal of Max Grütter, a Socialist, against the planned increase in the daily allowance for members of parliament – at that time 65 Swiss francs – as a gesture of economy. He was aware, of course, that his action was open to misinterpretation. Parliamentarians muttered that he was hardly the person to ask them to economize – he, who only appeared in the chamber «for cavalry charges», he, who flew to the sessions in Berne in his private plane (Schmidheiny had a pilot's licence).

Some of the criticism was justified, of course. Later Max Schmidheiny would say that «he had never been so bored as in the National Council». He began to consider where he could best serve the interests of the Swiss economy: «sitting around» in the lower chamber or doing business. After a single term of four years he declined to stand again in 1963. But he contin-

ued to serve in other public posts, for instance on the board of directors of the *Swiss Federal Railways* from 1961 to 1971 and as chairman of the *Association for the Promotion of the Swiss Economy* from 1961 to 1964.

On his 70th birthday in 1978 Max Schmidheiny reiterated his commitment to the market economy: he endowed a *Freedom Prize* at the University of St. Gallen, an institution to for which he had a special attachment and from which he had received an honorary doctorate in economics in 1967. The prize, with a grant of 100,000 Swiss francs, is awarded annually to two persons or organizations for «especially valuable efforts to preserve and expand the liberal economic and social order». Incidentally, the honorary doctorate from St Gallen was his second. In December 1952, the faculty of humanities and the natural sciences of the University of Basle had awarded him an honorary doctorate in recognition of his services in publishing the papers of the mathematician Leonhard Euler. As a young man, Max Schmidheiny, who had always been interested in mathematics, had collected the money needed for publication, a huge undertaking, in the face of which the Swiss Society of Natural Science had given up.

### **Settling his succession**

In his seventies, Max Schmidheiny began to think about his succession. In this, he avoided the mistake made by many heads of family concerns of refusing to take time between the pressures of daily business to settle this matter. The heirs are then left to deal with this difficult and painful point on the agenda, possibly paralysing the running of the business. Naturally, it was not easy for the Heerbrugg industrialist to decide to withdraw from his

firms, especially as by the 1980s he was quite aware that he and his younger son and heir held diametrically opposed views on *Eternit*, one of the family's oldest companies. Stephan, who was already virtually in charge of the firm, wanted to get out of the asbestos business. For many years, though, his father continued to feel that the worldwide concern about the health risks associated with the previously highly praised mineral fibre harboured a large element of hysteria.

Despite this, Max settled his succession on the basis of certain clear principles, which he himself never put in writing. Writing, he often emphasized, «had never been his forte». In a later speech, however, his second son, Stephan, discoursed at length on succession in family businesses, inspired by very personal experience. His views mirrored the clash between emotions and rational considerations that accompanied the transfer of Max Schmidheiny's life's work to his sons' shoulders.

Stephan Schmidheiny wrote that every family businessman who «is in full possession of his physical and mental powers, with the assurance and satisfaction of success» and sets about settling his succession «must in his mind give up his life's work, indeed, the purpose of his life». «This means, first, transferring one's own responsibility to a successor who has not yet properly proved himself – when has one finally proved oneself in business? Second, it means finding a new style of life for oneself to replace life as a businessman. Both of these are tasks whose fulfilment requires a considerable measure of insight, consistency and human greatness.»

It was difficult to find a single solution. Only after a great deal of thought and discussion did it become clear that one holding company for all the fam-

*Max Schmidheiny pursued his great passion for hunting – above all in Vorarlberg – even at an advanced age.*



ily businesses was not the solution. A parent company of this nature had to be so large and complex that it would run counter to two Schmidheiny traditions: first, «ownership and responsibility» should, as a rule, remain in one hand, and second, management of all companies should be decentralized.

Finally, the family agreed to divide up the family's holdings – which, in turn, was not all that easy. The companies founded or expanded by «Sir Max» in Switzerland and abroad were complex constructions that were often interlinked, even involving crossholdings in some cases. To disentangle them took months of laborious effort. By 1984 sufficient process had been made in the transformation that Max Schmidheiny was able to announce the new arrangements at the «*Holderbank*» annual press conference on 7 June. He emphasized, above all, that the Schmidheiny Group should not be regarded as a single corporation; it did not have one single policy-making body and management for all companies: «Different branches of the «Schmidheiny Group»», according to the communiqué, «behave towards one another like independent third parties, even to the extent of not excluding direct competition».

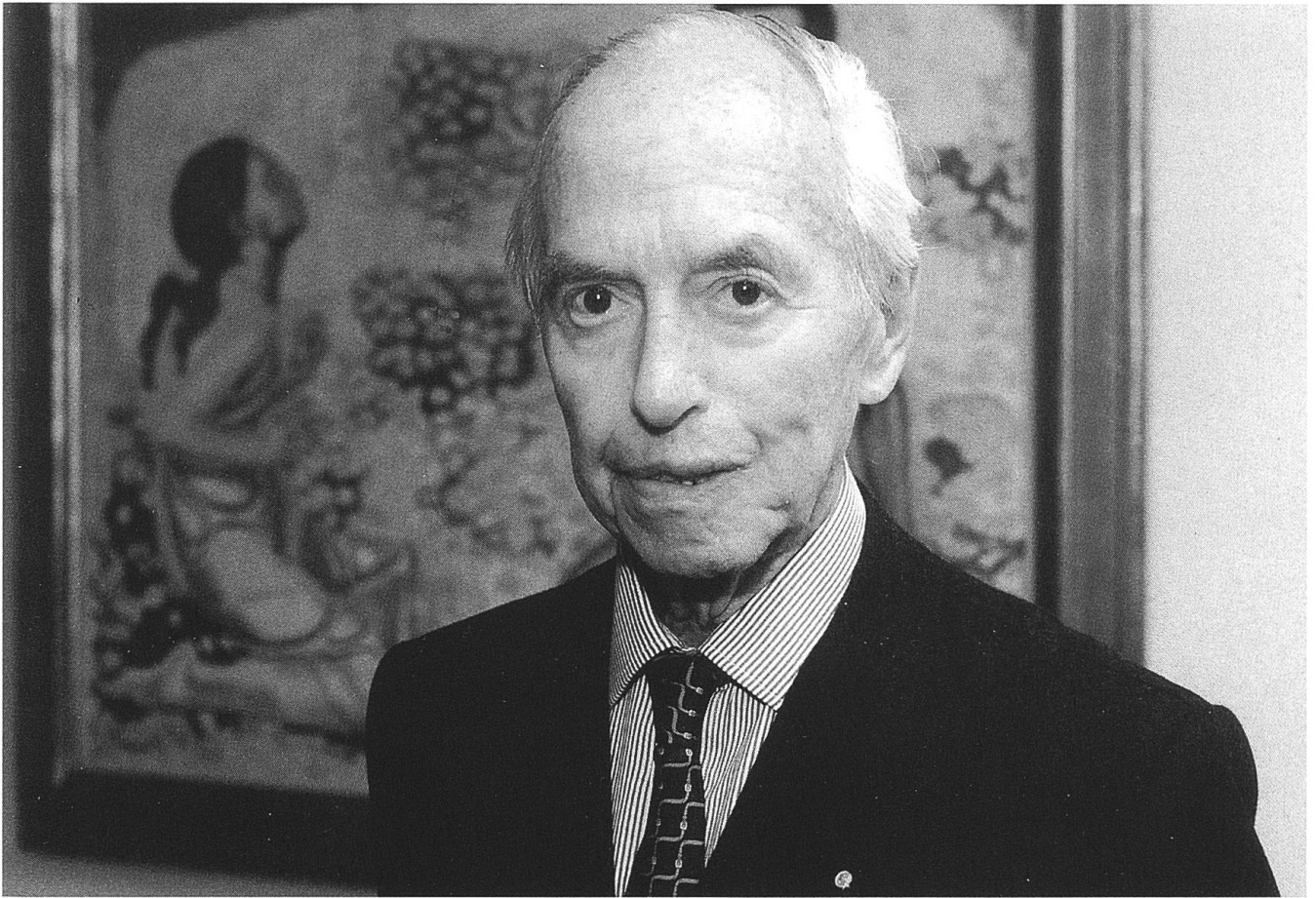
In practice, this basically meant that 39-year-old Thomas would assume responsibility for the «*Holderbank*» holdings and 37-year-old Stephan for Eternit. In 1984, Max Schmidheiny resigned from the board of directors of «*Holderbank*» *Financière* and a year later from the *Eternit Group* board as well. This departure from the family's two traditional companies should have convinced even the most sceptical minds that the father had indeed transferred all responsibility to his sons. He allowed his successors enough scope to find their own way «by trial and er-

ror», as Stephan expressed it in his account. His older brother Thomas added: «He respected the decision taken in 1984 to hand over responsibility. Had he interfered, no one would have taken us seriously.»

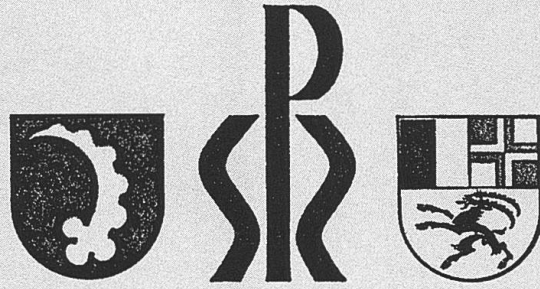
### **The «most powerful businessman in Switzerland»**

However, the elderly gentleman continued to take an active part in social and political affairs. He had more leisure, and more time for hunting, which he pursued with passionate enthusiasm, above all in Vorarlberg. Yet he still kept himself thoroughly informed about every detail in the family operations, read minutes, memoranda and reports. In his last years he took to saying he had neither the time nor the interest to be tired. And he was always present at crucial meetings – not to interfere, but just to draw attention to an important problem using an odd passing comment or one of the pointed questions for which he was famous. He continued to follow these business affairs with an iron resolution for an astonishingly long time well into his eighties, notwithstanding the infirmities of age, until his death on 19 August 1991.

With his death passed one of the last, great representatives of a generation of businessmen who were in the position to create an empire not only through painstaking attention to detail, but also through far-sighted intuition. With his death passed the man that the German journal «*Capital*» – belatedly – discovered to be the «most powerful businessman in Switzerland».



*Max Schmidheiny on his 80th birthday in 1988, standing in front of «Spring», a painting of his collection of Ferdinand Hodler's works.*



# URKUNDE

DIE GEMEINDE PAGIG/SCHANFIGG GR ERNENNT MIT GROSSER FREUDE  
UND DANKBARKEIT

HERRN DR. H.C. MAX SCHMIDHEINY

DIPL. ING. E.T.H. GEB. AM 3. APRIL 1908,  
VON BALGACH SG UND WOHNHAFT IN HEERBRUGG SG, ZU IHREM

# EHRENBÜRGER

MIT ALLEN DARAUSS ERWACHSENDEN RECHTEN UND PFLICHTEN WIRD  
ZUSAMMEN MIT DEM GENANNTEN AUCH SEINE FAMILIE IN DIE EHRUNG  
EINGESCHLOSSEN:

SEINE EHEFRAU ALICE LINA, GEB. AM 14. JULI 1915  
SEINE TOCHTER ADDA MARIETTA, GEB. AM 26. NOVEMBER 1944  
SEIN SOHN THOMAS, GEB. AM 17. DEZEMBER 1945  
SEIN SOHN STEPHAN, GEB. AM 29. OKTOBER 1947  
SEIN SOHN ALEXANDER, GEB. AM 25. MÄRZ 1951

DER GROSSE RAT DES EIDGENÖSSISCHEN STANDES GRAUBÜNDEN HAT  
DIESE AMTSHANDLUNG DER GEMEINDE PAGIG AM 3. OKTOBER 1969 GENEH-  
MIGT UND FÜR DR. H.C. MAX SCHMIDHEINY UND SEINE FAMILIENANGE-  
HÖRIGEN DURCH DAS DEPARTEMENT DES INNERN UND DER VOLKSWIRTSCHAFT  
DIE BÜRGERBRIEFE DES KANTONS AUSSTELLEN LASSEN. DAMIT SOLLEN DIE  
GROSSEN UND BLEIBENDEN VERDIENSTE, DIE SICH DR. H.C. SCHMIDHEINY  
UM DAS WOHL UNSERER BERGGEMEINDE ERWORBEN HAT, ANERKANNT  
UND GEWÜRDIGT SEIN.

PAGIG, DEN 1. NOVEMBER 1969

FÜR DEN BÜRGERRAT:

*Walter Michael  
Joos Kirchner*

## Chronology

- 1908** 3 April: birth of Max Schmidheiny
- 1926** October: high school leaving examination, Trogen
- 1931** Max Schmidheiny graduates from the Federal Institute of Technology, Zurich, with a diploma in mechanical engineering – Heinrich Wild, one of the founders of *Verkaufsaktiengesellschaft Heinrich Wild's geodätischer Instrumente* in Heerbrugg, leaves to join the *Kern company* in Aarau; Max Schmidheiny acquires a majority shareholding in *Wild AG*
- 1932** Apprenticeship in the cement factory in Maastricht
- 1933** 1 January: joins the board of directors of *Wild-Heerbrugg*
- 1934** Elected chairman of the board of directors of *Holzindustrie AG St. Margrethen HIAG*, which had been founded in 1924 (until 1974) – managing director of *Eternit Niederurnen*
- 1935** 15 March: His father Ernst Schmidheiny dies in an air crash near El Arish in northern Sinai – Max Schmidheiny appointed managing director of the *Société Egyptienne de Ciment Portland Tourah-Le Caire*, of *Schweizerische Cement Industrie-Gesellschaft Glarus*, of the *Société des Ciments Libanais Chekka* and deputy chairman of *Wild-Heerbrugg*
- 1936** Joins the board of directors of *Gipsunion*
- 1937** Joins the board of directors of «*Holderbank*» *Financière (HOFI)*
- 1938** Buys *Zündholzfabrik Terza*, a match producer in Unterterzen
- 1942** 25 July: marries Adda Scherrer – meets Winston Churchill in Cairo – deputy chairman of *Eternit AG Berlin*, founded in 1929
- 1944** 26 November: birth of his daughter Adda Marietta
- 1945** 17 December: birth of his son Thomas – Max Schmidheiny appointed managing director of *HOFI*
- 1947** 29 October: birth of his son Stephan – creation of the *Adda Marietta Schmidheiny Foundation* for the benefit of the Schanfigg village of Pagig, which names him an honorary citizen on 1 July 1969
- 1948** Elected chairman of the supervisory board of *Eternit Berlin AG* – decides to rebuild the factory in Berlin-Rudow
- 1950** *Eternit S.A.L.* founded in Chekka, Lebanon (starts operating 1951)
- 1951** 25 March: birth of his son Alexander
- 1952** *Tourah* and *Helwan* found a joint venture: *Alexandria Portland Cementfabrik* – 21 November: receives an honorary doctorate from the faculty of humanities and natural sciences of the University of Basle
- 1954** 16 March: Elected chairman of the board of directors of *Wild-Heerbrugg* (until 1983) as Jacob Schmidheiny's successor
- 1955** 8 March: elected chairman of *Rheintalische Strassenbahnen* (renamed *Rheintalische Verkehrsbetriebe*; resigned as chairman 3 July 1970)
- 1956** Joins the board of directors of *Landis & Gyr Zug* (until 1974)
- 1959** Elected to parliament (until 1963) – elected chairman of the board of directors of *Swiss-petrol* (until 1983)

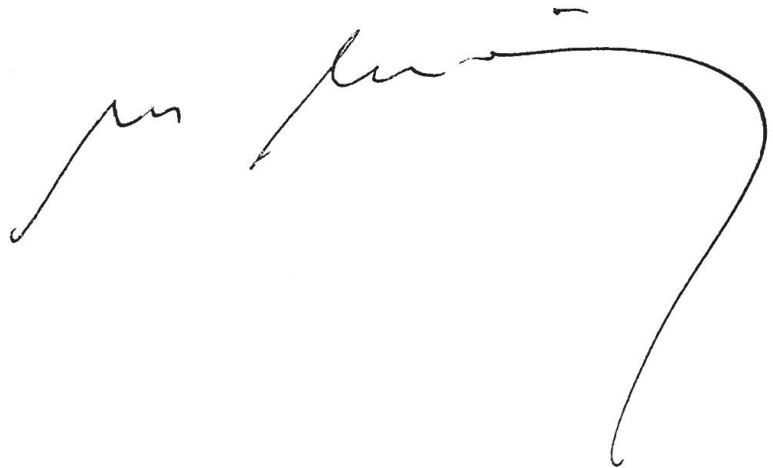
*On 1 November 1969, Max Schmidheiny and his family were made honorary citizens of the community of Pagig/Schanfigg. Twenty-two years previously, the Heerbrugg industrialist created the Adda Marietta Schmidheiny Foundation – named after his daughter – for the express purpose of supporting the village.*

- 1961** 20 July: Egyptian government decrees nationalization of the *Portland Cement Company Tourah, Helwan and Alexandria* – Max Schmidheiny joins the board of directors of the *Swiss Federal Railways* (until 1971) and *Kraftwerke Sarganserland* (until 1983), the utility founded on his initiative – elected chairman of the board of directors of *Gipsunion*
- 1962** Joins the board of directors of *Brown Boveri & Cie. (BBC)*
- 1963** Chairman of the *Association for the Promotion of the Swiss Economy* (until 1966)
- 1964** Agreement with Egypt on compensation for *Tourah-Le Caire* – joins the board of directors of *Motor Columbus AG* (until 1982)
- 1966** 13 July: Elected chairman of the board of directors of *BBC* (until 15 July 1970)
- 1967** 14 March: Max Schmidheiny seals merger of *BBC* and *MFO* – 20 May: the University of St. Gallen awards Max Schmidheiny an honorary doctorate in economics – 15 June: elected chairman of the board of directors of *Eternit Niederrurnen AG*

*BBC Chairman Max Schmidheiny addressing the company's Annual General Meeting.*



- 1969** Max Schmidheiny named *Commander of the Order of the Cedar* by President Charles Hélou of Lebanon – elected deputy chairman of the board of directors of *HOFI*
- 1970** 15 July: Max Schmidheiny resigns as chairman of *BBC*; affair surrounding election of Hans Schaffner, a former federal councillor, as his successor. After Schaffner's refusal, Franz Luterbacher elected chairman; Max Schmidheiny remains deputy chairman until 5 May 1980
- 1974** *Wild-Heerbrugg* acquires a majority holding in *Leitz-Wetzlar* – Max Schmidheiny elected chairman of the board of directors of *HOFI* (until 1984)
- 1977** Max Schmidheiny plays a leading role in a foundation's acquisition of the *Monastery of Ittingen* for renovation and rehabilitation
- 1978** 3 April: On his 70th birthday, Max Schmidheiny endows the *Max Schmidheiny Freedom Prize* at the University of St. Gallen for outstanding achievements in economics, politics or business in Switzerland or abroad – 19 September: inauguration of *Kraftwerke Sarganserland* – 22 September: retires as chairman of *Eternit Niederurnen AG*, succeeded by Stephan Schmidheiny
- 1979** 8 March: UNESCO's *Institut International de Promotion et de Prestige* awards Max Schmidheiny the *Trophée Internationale de l'Industrie*
- 1980** 11 July: Max Schmidheiny elected honorary chairman of *Eternit AG Berlin* and awarded the *Ernst Reuter Medal* by the City of Berlin
- 1984** Settles succession; the family interests divided between his sons Thomas and Stephan
- 1991** 19 August: Max Schmidheiny dies


 A handwritten signature in black ink, appearing to read 'Max Schmidheiny'. The signature is written in a cursive style with a large, sweeping flourish at the end.



*Peter Schmidheiny,  
born 1908*

# Peter Schmidheiny (born 1908)

## Building bridges in the engineering industry

Born under a lucky star and «well served in life» – so says Peter Schmidheiny about Peter Schmidheiny. At a ripe old age, he talked of the «tremendous good fortune» he had had both with his family and in his work, and of the circumstances of «starting up in extremely difficult times». After all, this had not been a career without hurdles. Born the second of four children on 12 July 1908, the son of Jacob II and Fanny (née Alder), he spent his youth at Schloss Heerbrugg in the town of the same name in the Canton of St. Gallen.

Peter followed the Schmidheiny family tradition by attending primary school in Switzerland's Rhine Valley. He then went to the cantonal school at Trogen, for some of the time with his cousin Max who was the same age. They also did their military training together before their army paths separated them. Both boys showed early that they had astute business brains. Peter grins as he recounts how he pulled off his first lucrative deal as a young lad, buying two oranges for 15 centimes and selling his sister one of them for 10!

Of course these were modest sums, but in those days modesty was highly regarded. To this day Peter Schmidheiny has never forgotten the stories he heard as a boy about the way things used to be at the family brickmaking company. His grandfather, the «manufacturer», would feed the workers at his own table: «Meat was a rarity, health and disability insurance unknown. In the 1930s an unemployed

man received a franc a day and his wife at home would be glad of it.» For Peter Schmidheiny there was nothing strange about this because then, as now, far too many people did not have a job to go to.

Peter's next stepping-stone was the Federal Institute of Technology (ETH) in Zurich, where he qualified as a mechanical engineer in 1932. But at *Tiergarten*, the family firm where he did his apprenticeship, he followed another Schmidheiny tradition by starting at the bottom. As he told journalist Carl Seelig, «that year at *Tiergarten* gave me the opportunity to experience all the practical aspects of the business, from winning and preparing the clay to the actual brick-making».

Just a year after his Institute of Technology examinations Peter became an unlimited partner in *J. Schmidheiny und Co.* in Heerbrugg. He was barely twenty-five. His father Jacob had always said he was in favour of «young people thinking and acting independently», and Peter was now to see that these were not just empty words: «I proposed innovations and experiments for drying the roof tiles and he trusted me to take them into production», he explains. «The new installation cost millions and some expert or other gave him a rather gloating warning that it would turn out to be a complete disaster. My father simply mentioned this to me in passing and the only comment he made was «I assume you know what you're doing». That was good enough for him.»

### Chairman of Zürcher Ziegeleien

Brickmaking took up only part of Peter Schmidheiny's time, but here too he was to play a leading role. In 1935 he was voted on to the board of directors of *Zürcher Ziegeleien (ZZ)*, the Zurich brickmakers. At the time the group was chaired by his father Jacob II, who died in 1955 and whom Peter was to succeed. It was a difficult time for the group but it did mark the start of a remarkable recovery. In 1958 ZZ extended its interests beyond Switzerland, first to Germany and later to other countries as well. The product range was also expanded, both in Switzerland and abroad.

To cope with a rising demand for bricks in the construction industry after 1963 the various ZZ group companies had to modernize, mechanize and automate their production facilities as well as expand capacity. This upgrading programme included construction of an additional brick production plant in Istighofen and a foam mortar facility in Estavayer-le-Lac, the latter enabling ZZ to include light building materials in its product range. This was in response to the technological advances that were taking place in the Swiss economy, especially in the industrial construction sector. In May 1962 Peter Schmidheiny described these developments as entailing «a move away from traditional building materials towards light-weight, large-sized and well-insulated building components». ZZ embarked on a round of acquisitions and company formations and the group became increasingly diversified. Initially this diversification was confined to the construction industry itself, but *Wancor AG* was then set up to concentrate on wall and roof insulation – a logical response to the oil crisis and climbing energy prices throughout the first half of the 1970s.

In 1972, while Peter Schmidheiny was still chairman of ZZ, *Transall AG* was set up to coordinate and round off transport requirements within the group, therefore enabling it to deploy its own fleet with maximum efficiency. By offering its services not only to ZZ companies but also customers outside, *Transall* was continuing a trend that had actually set in just after the First World War. In 1919 Professor Rudolf Escher, who was then the chairman of ZZ, spoke of the revolutionary changes that were taking place in transport and referred to «the use of motor vehicles for transporting clay». He went on to give details: «One two-horse wagon carries one cubic metre of clay and makes four journeys a day. Each journey costs 11 or 12 francs. A motor lorry makes about eight journeys a day, carries three cubic metres of clay and uses about seven litres of petrol per journey at a cost of 1.30 francs. Further costs are a driver at 15 francs a day along with lubricating oil, cleaning materials and suchlike». Professor Escher concluded from all this that, when depreciation was also included, transporting clay by motor vehicle cost «around 5 francs» per cubic metre. These modest nominal figures were of course to change over the years to come, but half a century later what was being extolled as a revolutionary innovation in 1919 has of course become entirely normal in our own day and is also undergoing continual improvement. As far as *Transall* is concerned, the *Zürcher Ziegeleien* annual report for 1988 states that its transport arm had access to more than twenty-five of its own and other vehicles along with around 4,000 palette storage places.

As time progressed Peter Schmidheiny was to become increasingly less visible at ZZ since his time was largely being taken up by other matters (out-

lined below). From 1964 on Carletto Mumenthaler, who had been elected as managing director the year before, was to report to the group's Annual General Meetings. Not only had the two men known each other since their days at the Trogen cantonal school but, as Mr Mumenthaler recalls, they had even «shared the same digs». However, when the construction industry was hit by a new and severe crisis in the recession year of 1975, Peter Schmidheiny was again obliged to intervene personally. He addressed that year's AGM «entirely frankly» and, in contrast to his managing director's rather restrained comments, spoke of a «dreadful» group result. He was to reiterate the message in May 1976: «After my highly unfavourable 1975 forecast I regret to have to announce to today's AGM that it has been borne out.»

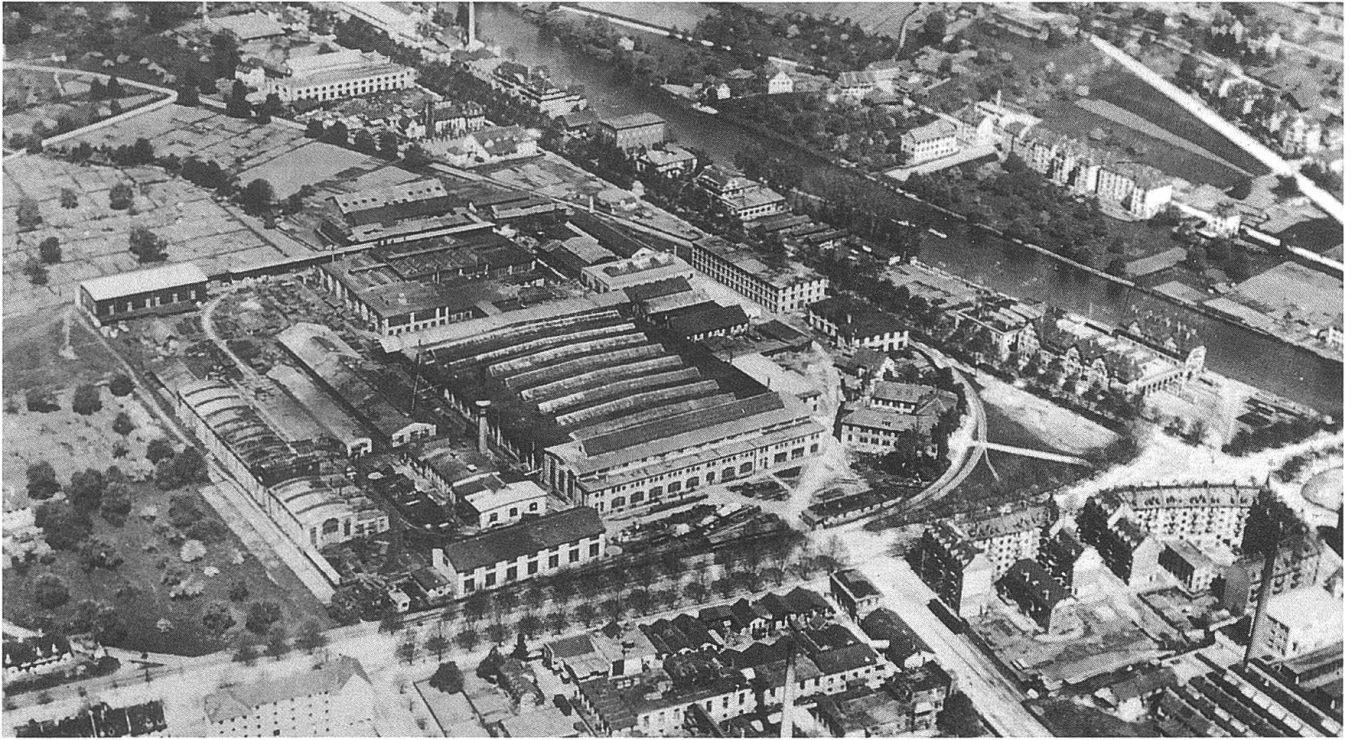
Carletto Mumenthaler stepped down as *Zürcher Ziegeleien* managing director at the end of 1976. Two years later he was succeeded by Peter Schmidheiny's son Jacob III, who from then on acted as the group's chief executive and in his very first annual report was able to announce a gratifying improvement in the figures. Peter remained as chairman of the board of directors of *Zürcher Ziegeleien*, not retiring until May 1984. At the Annual General Meeting his son Jacob was elected as his successor.

#### **From «hydraulics manager» at Escher Wyss...**

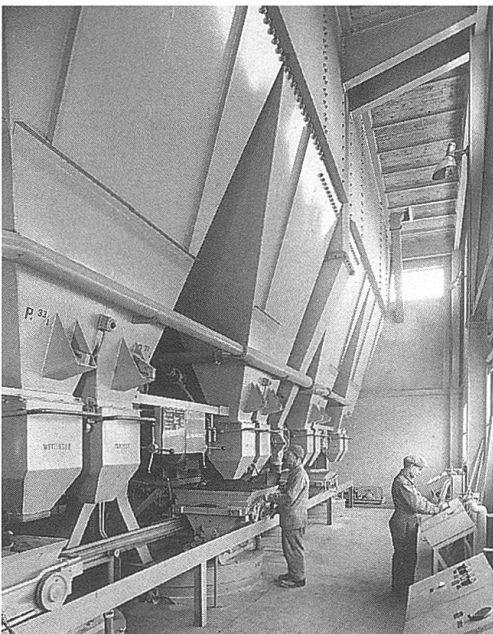
Those other activities referred to above that were increasingly to occupy Peter Schmidheiny as the years and decades advanced had absolutely nothing to do with brickmaking. As a mechanical engineer he was quick to take an interest in the Zurich-based *Escher Wyss Maschinenfabriken Aktiengesellschaft*, a company where over

the years he was to rise to the highest level of responsibility. In 1936 his father Jacob and several friends had acquired half the share capital when *Escher Wyss* was on the verge of bankruptcy, with Jacob also stating expressly that he wanted his son to become actively involved in the company's affairs. Peter told Carl Seelig how he saw things at that time – and certainly he had no illusions: «In 1937 I was serving as a captain in Bière, in the canton of Vaud. My father phoned to say he'd be visiting me in Berne the following Sunday. He said he was thinking of throwing a life-line to *Escher Wyss*, which had never entirely recovered from its financial difficulties. He thought that with good management it ought to be possible to restore the company to health since it was universally acknowledged for its technical excellence. However, it was mainly for my sake that he wanted to take on this major new commitment and deploy the necessary financial resources, and this on the understanding that I would be prepared to assume responsibility later on for the company's many hundreds of employees. Of course, my answer was an enthusiastic «yes». My father may well have put this world-renowned company back on its feet even if I had declined, but at the time I felt the decision I was being asked to make reflected the care of a father and the unshakeable confidence of a best friend. I started work the same year, on 1 November.»

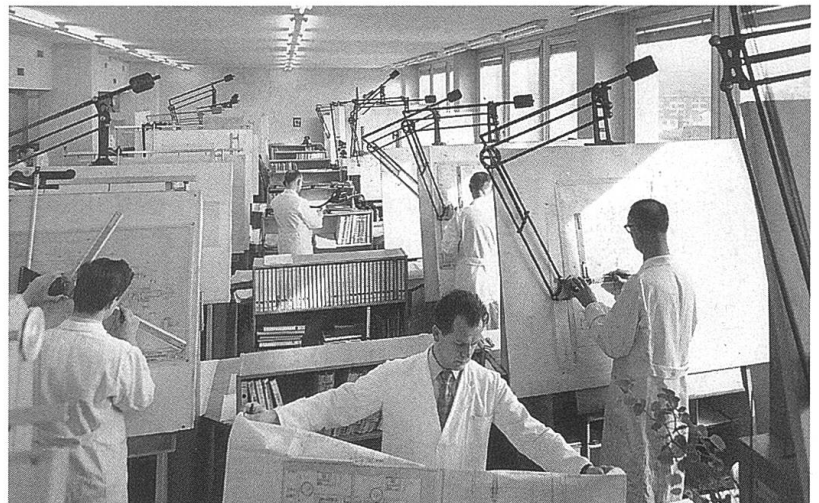
He started off in the steam turbine department but also acquainted himself thoroughly with «all the departments» where he «met loads of people» – invaluable for a man who was later to head the company. However, he was not at first given a title. The sales manager, who introduced him to important customers, referred to him simply as «the chairman's son». This



*The Escher Wyss site in 1930 when the firm had gone bankrupt and before the takeover by Jacob Schmidheiny II*



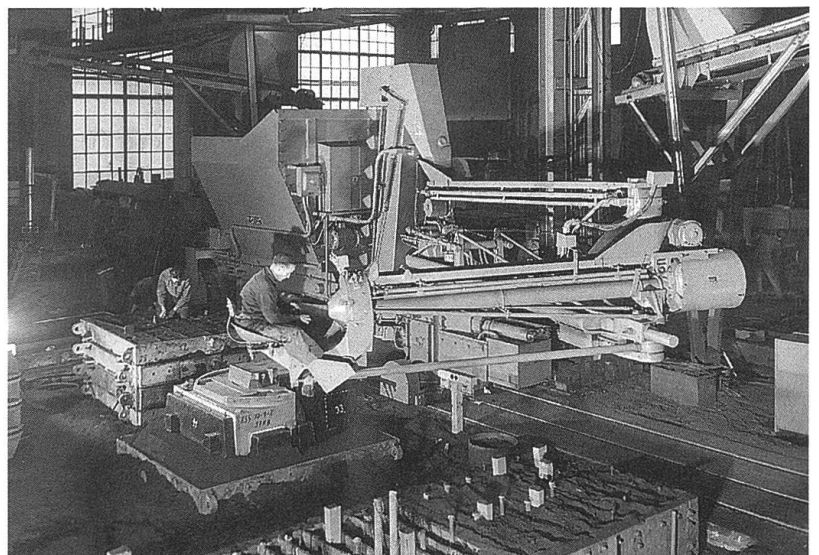
*Sand mixer for a fully automated sand processing plant*



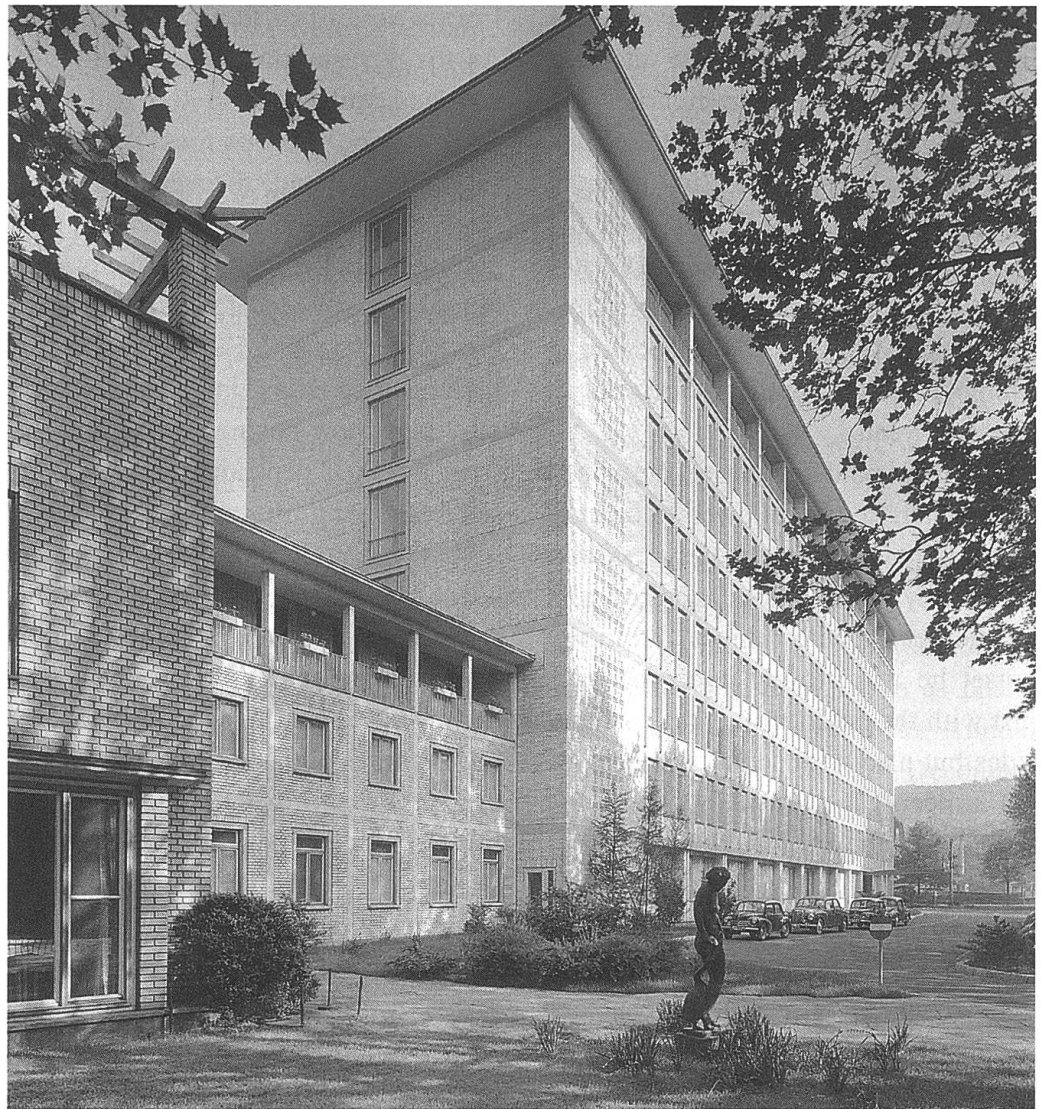
*Design shop*

## **The regeneration of Escher Wyss in Zurich**

*Sand slinger used to centrifuge the moulding sand into floor and cast mouldings*



*The new Escher Wyss  
administration building,  
constructed in 1953*



*Escher Wyss in 1993,  
with new workshops  
and the administration  
building in use since  
1955 (foreground)*



may have made his life relatively easy in some respects but still the 30-year-old did not feel particularly comfortable in this rather indeterminate role. He therefore urged his father to give him real responsibility, and his appointment as manager of the *Escher Wyss* hydraulics department duly followed in May 1939. He became a Member of the board of directors in the same year.

He later paid tribute to the speed with which he was allowed to operate very largely independently: «Even though my father was still chairman he let me get on with things». From the outset he was closely concerned not just with the engineering and business sides but also with social and personnel aspects. In 1939, following the outbreak of the Second World War and two years after he had joined the company, a proposal of his was implemented with the employees' full agreement. This was for people who had not been called up for active military service to make over a certain proportion of their wages to those who had been conscripted. This would provide valuable support for their families at a time when the system of statutory compensation for loss of earnings had not yet been introduced. From 1943 on Peter Schmidheiny also managed the company pension fund for white-collar staff, later taking charge of the blue-collar fund as well. It was during these early years of Peter Schmidheiny's time at the company that much of the groundwork was laid for the new staff welfare centre. A fund was set up for this in 1945, and it was built in 1948.

### **...to managing director in difficult times**

Peter Schmidheiny was appointed managing director of *Escher Wyss* on 1 January 1946, when it was emerging

from a time of difficulty and change. As the devastation of the 1939–1945 war had worsened, so too had fears that Europe's economies would be shattered beyond recovery. At first *Escher Wyss* actually increased production, but the hostilities were soon hampering imports of vital raw materials. Moreover, with Europe's transport systems becoming increasingly chaotic the export business on which the firm was 80% dependent also encountered growing disruption. However, with the company doing its best to adapt to changing patterns of demand at home and abroad, even the turmoil of war failed to shut down production completely. For instance, when in 1941 the coal shortage sharply depressed orders for thermal power stations and demand for hydraulic installations rose as a result, the company was able to respond. Orders for fruit and vegetable preservation plants were also up substantially. Shortly after the war these trends went into reverse. After 1945 it was mainly steam turbines that were back in industrial demand in those regions whose economies were functioning again, and this development was accompanied by a decline in orders for hydraulic plant – Peter Schmidheiny's own specialist area of expertise – in which construction cycles were longer.

*Escher Wyss* was a direct beneficiary of the rise in energy requirements as economic reconstruction gathered pace. With competition growing fiercer all the time, however, prices were under pressure. Even then the company was able to modernize and improve its production facilities continually – not least thanks to Peter Schmidheiny's influence – despite the huge financial difficulties encountered initially and the international dislocation. Moreover, the adversity of war, raw material shortages, production bottlenecks and

transport difficulties were a veritable school of learning for the company's managers. Efforts were simply redoubled in order to raise general levels of efficiency and achieve further technological advances.

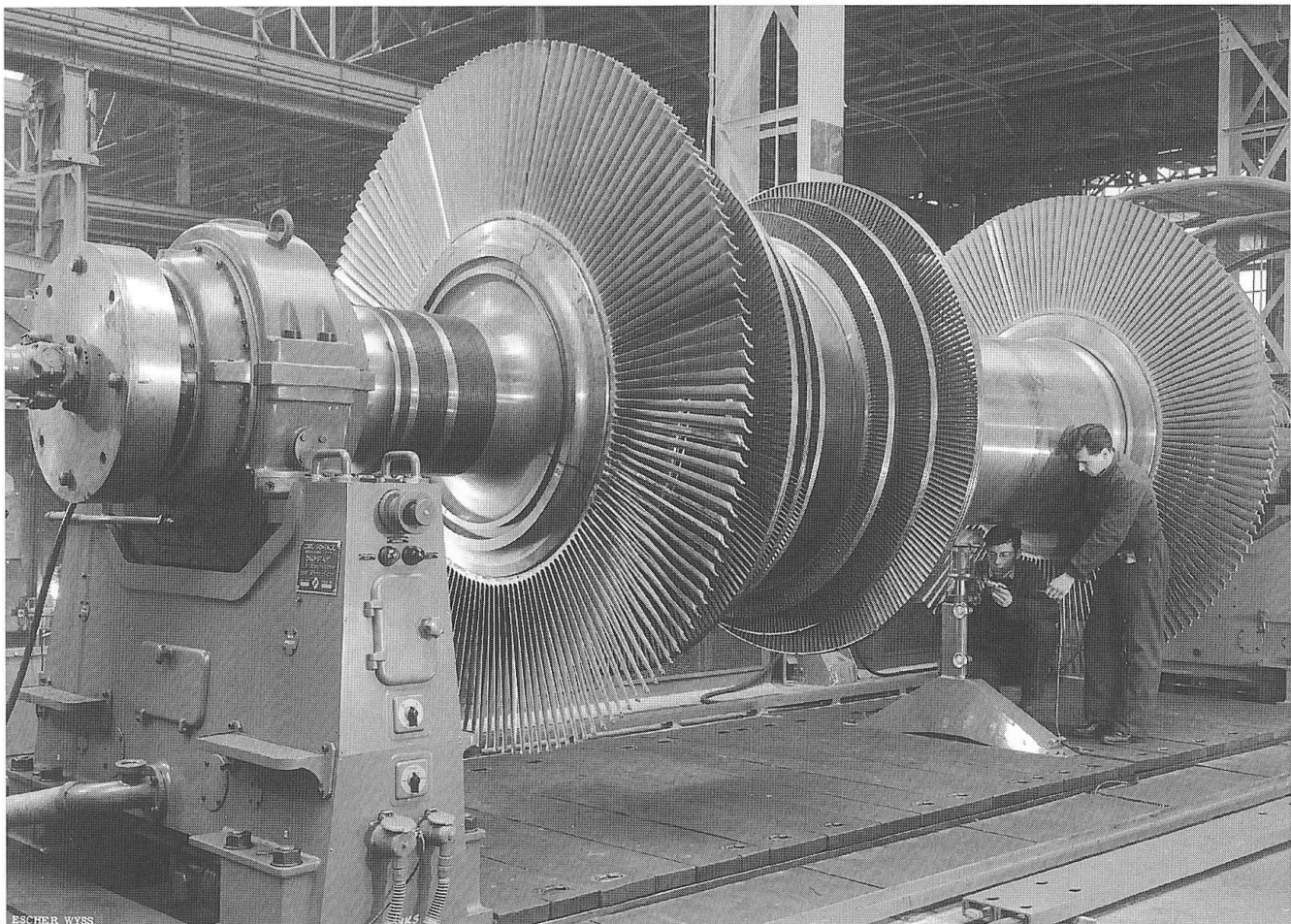
That could be done only by steadily beefing up the company's research effort, something which Peter Schmidheiny was very keen to see happen. He stressed that it was the only way «to achieve greater efficiency», but added that a sustained research effort was only possible if the «the necessary financial and technical conditions have been created. We can keep up with progress only by adapting to the new requirements in good time. Simply being able to build the machines is not enough – we have to do so economically in order to survive the harsh competitive climate. To solve the resulting problems we need not only good ideas but also the necessary development work. Appreciable finan-

cial resources for investment are also required. The reproach that we are expanding too much is heard from several different and insufficiently informed quarters, yet it is the rapid pace of technological development that obliges us to invest on a major scale. And, in any case, I admit quite openly that any mechanical engineer will find it a pleasure to work in a modern factory with the latest machinery».

### **New managerial responsibility at Escher Wyss**

Eight years after the war, Jacob Schmidheiny stepped down as chairman of *Escher Wyss*. At the Annual General Meeting on 15 December 1953 his son Peter was voted in as his successor. More and more, the new chairman was to be called upon to come up with the right solutions to increasingly difficult problems. The scale of resources that companies like

*Low-pressure triple-stream turbine rotor for the Baudour plant (in Belgium) undergoing machining at Escher Wyss*



*Escher Wyss* needed to invest in order to retain traditional leads was rising all the time. It is true that the firm was able to point with pride at all the innovations to have emerged from its research laboratories and production plants in the course of time – such as the world's first tubular turbine with a circular flow generator, the first variable-pitch aircraft screw propeller with rapid adjustment for braking on landing, the first tubular turbine with a capacity of 85,000 kW and the first heat pump for heating buildings (destined for use in Zurich's city hall). For all that, Peter Schmidheiny – whose vision was that of an engineer and company head at the same time – was well aware of the problems that *Escher Wyss* would face when the business cycle turned down again.

In any case his chairmanship marked the advent of a new managerial style. His father, known to all as the «Colonel», had unambiguously been the company's sole head. His son Peter now shared this responsibility with vice chairman Dr Hans Gygi, with the two men chairing the weekly board meetings jointly. Peter Schmidheiny also maintained close personal contact with the leading figures in the company, as well as getting to know their families well. As one of the ladies in question was later to note with satisfaction, the wives were involved wherever appropriate and always treated as equals. Peter had clearly inherited this high opinion of women from his father. According to the latter's nephew, Hans Hoffmann-Schmidheiny, the custom of holding every Annual General Meeting for the eastern Switzerland brickmakers in the presence of «our dear ladies» was introduced by Jacob II as early as the 1920s, i.e. at a time when this certainly could not be taken for granted. «If any disagreements remained among the

shareholders they were easy enough to deal with», Hans Hoffmann-Schmidheiny reminisces. «After all, our managing director always bows to a lady's opinion.»

Peter has always had the same attitude to life as his father. He was very much a man who enjoyed a social occasion and had a great zest for life, as he had already demonstrated as a student at the Federal Institute of Technology. He paid tribute to the «liberal approach» adopted to his education by his father, who himself lived part of the time in Zurich «and would have been able to keep a close eye on what I was getting up to. The fact that he didn't shows that he trusted young people. The most he ever said to me was: «just because I was always socializing there's no reason for you to overdo it as well»».

Peter's open-mindedness clearly contributed to the atmosphere of trust that was so much a part of *Escher Wyss* – so much so that the chairman felt able to discuss and intervene with regard to a whole range of technical details. A man who «wanted to know everything», in the late 1950s and early 1960s he nevertheless had his problems with the rapid pace of progress that was leading to more mechanization, differentiated manufacturing methods and the production of ever larger units. These were not the only difficulties. The strengthening European Community economies were keen to conquer as much of the market as possible, partly because they were strapped by foreign exchange and partly given the need to create jobs. Moreover, in developing countries – where *Escher Wyss* had important customers – there were financing and payment difficulties with major orders. This meant the Zurich-based parent company was unable to exploit its full production potential.

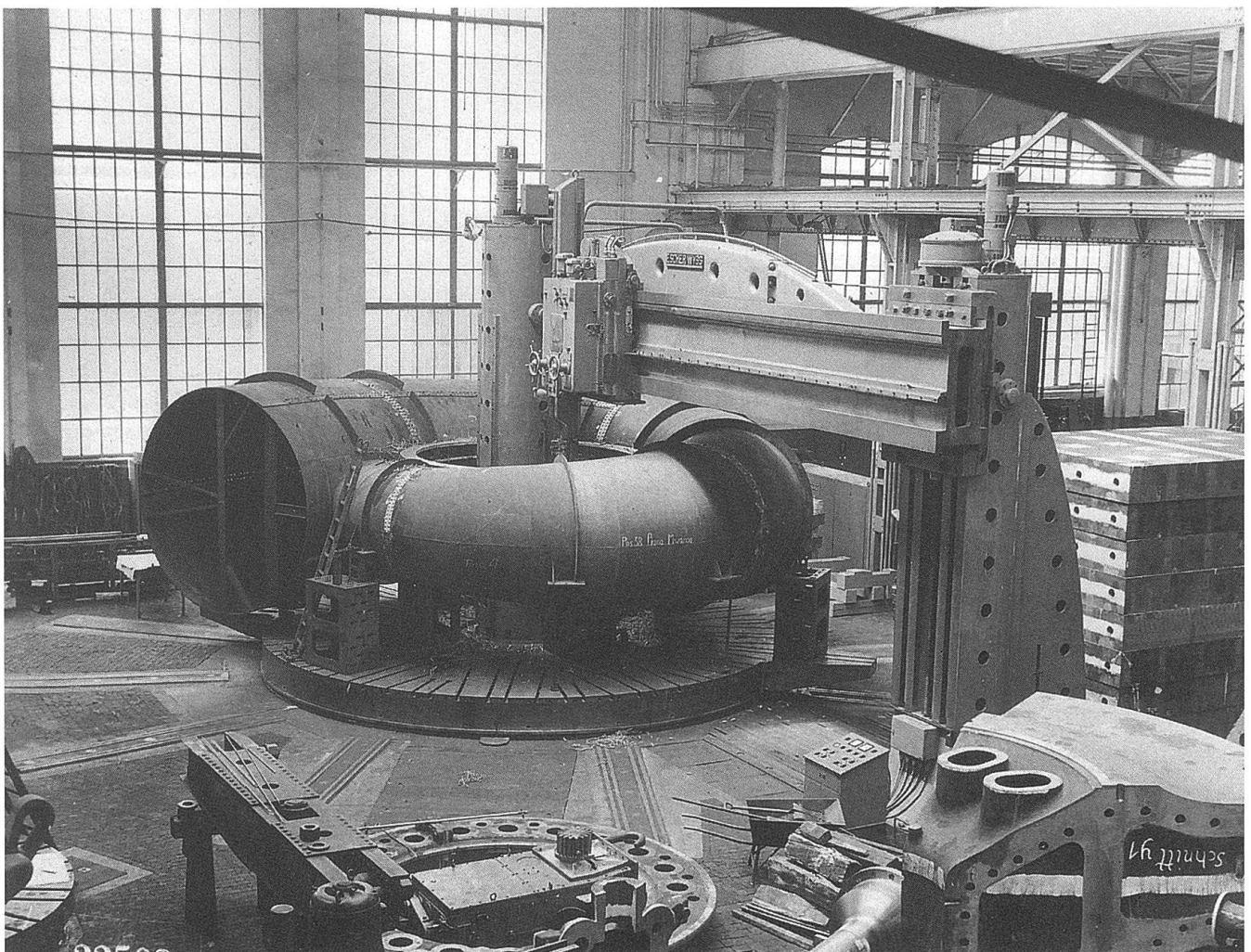
### From loose «cooperation»...

With the economic situation becoming trickier all the time, Peter Schmidheiny had increasingly definite ideas on «coordination between industrial companies». His father's thoughts had also turned in this direction, but it was Peter who was to become fully aware of the need. He formulated his ideas in an address held in 1961. He argued that with industrial activities becoming increasingly large-scale they could no longer be carried out by individual companies, «particularly those not on an American scale. However, the frequently almost frightening pace of technical progress and the huge resources involved make it impossible for many companies to keep up in the race alone. (...) Furthermore, parallel with this technical race there is an equally fierce economic struggle

that is leading to ever greater specialization and increasing the amount of capital tied up in every job provided».

In Schmidheiny's experience, however, the conditions for effective cooperation in the mechanical engineering industry were far from propitious, with «the great diversity of the industry's products» as the main problem. Since every design engineer regarded «his solution as the best», the standardization of several solutions would mean people «sacrificing personal prestige. This is allied to the usually mistaken belief that a technical lead is the cause of significant economic advantages for a company – mistaken because competitors generally have aces up their sleeves as well. When things are looking good, it is not easy to find support for the argument that in the long run it makes more

*Boring out a hydroturbine helix with a diameter of 12 metres*



sense to combine rather than fragment our efforts as an industry».

It was Peter Schmidheiny's firm conviction that «increased cooperation between individual companies will be necessary in the mechanical engineering industry, especially in Switzerland». Indeed, according to one of his closest colleagues at the time he believed that the various companies were too remote from one another: «That people should be proud of their own company is entirely justifiable», he said, «but it can also go too far.» A modest but, according to Schmidheiny, «successful» start on the path towards cooperation was made by *Escher Wyss* in 1954 when it concluded an agreement with *Brown Boveri & Cie* and *Georg Fischer* on the testing of heat-resistant materials. The agreement was all fairly informal, there was nothing in writing and competition between the three companies was certainly not affected.

A second important step was taken in 1957 when *Escher Wyss* and Geneva-based *Ateliers des Charmilles* decided to exchange the theoretical and practical results they had achieved that far with regard to hydroturbine construction, and to pool their future research efforts. The point, as Peter Schmidheiny made clear, was not to reduce each company's research costs but to double their results: «Cooperation will not therefore inhibit progress but accelerate it», he explained.

A still more far-reaching cooperation agreement was signed in 1959 when *Maschinenfabrik Oerlikon (MFO)* and *Escher Wyss* set up their joint division. The two companies used this entity to integrate their steam-turbine and turbocompressor design and sales divisions. As Peter Schmidheiny recognised at the time, setting up the division was a risk because it required «a liberation from in-

dividual corporate egoisms, the generosity to give rather than take, and a restriction on the breadth of product ranges in favour of depth and concentration. It also required the parties to have the discipline not to pursue promising individual opportunities at the expense of the joint effort». Despite teething troubles the agreement did in fact work so well that after two years Peter Schmidheiny was able to say optimistically: «One of the biggest problems, namely the integration of two formerly competing teams into a single team, can now be regarded as solved.» However, the experiment had to be discontinued after almost ten years because when *MFO* was taken over by competitors *Brown Boveri & Cie* in 1967 it could no longer act as an independent partner in generator construction.

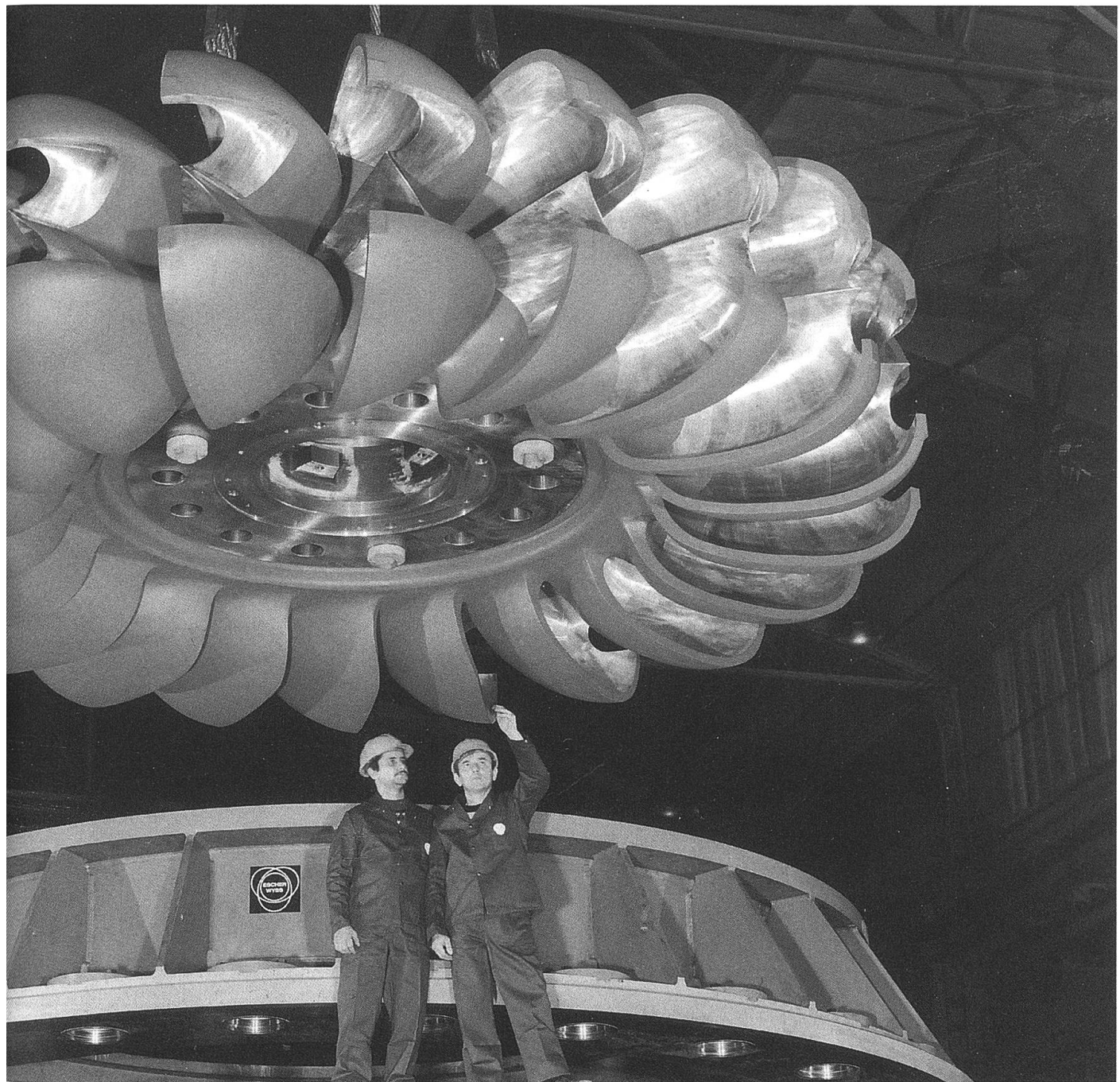
#### ...to «hidden takeover» and merger

Peter Schmidheiny and his colleagues forged the decisive breakthrough in 1966, which marked the start of a process of restructuring at *Escher Wyss* in which the company «teamed up» with *Sulzer*, the Winterthur group which it had an «amicable association» with. Personal as well as business considerations were involved here. First, the *Escher Wyss* chairman was faced with the problem of who was to succeed him. His son Jacob III, then aged twenty-three, had yet to complete his economics studies and was virtually devoid of business experience. In any case, the signs were that he would be more suitable to take over at *Zürcher Ziegeleien* later on rather than *Escher Wyss*. The other executive director, Dr Hans Gygi, also lacked a suitable successor.

The business considerations were the more significant. In the mid-1960s



*Modern hydraulic machines require workpieces of enormous dimensions; the photograph shows a Pelton turbine rotor built for the San Agaton hydroelectric power station in Venezuela. The rotor has a bowl with a diameter of 12 metres, which makes it the world's largest.*



*Escher Wyss* was clearly overstretched by the technical, economic and, above all, financial trends – and more so even what Peter Schmidheiny had forecast in his remarks in 1961. As time progressed he came increasingly to a realisation that, later on, he was frequently to articulate as follows: «*Escher Wyss* is too small for large orders and too large for small ones». A further consideration is that the company was quite literally running out of space. Assembly components were becoming increasingly voluminous, and the Zurich workshops were bursting at

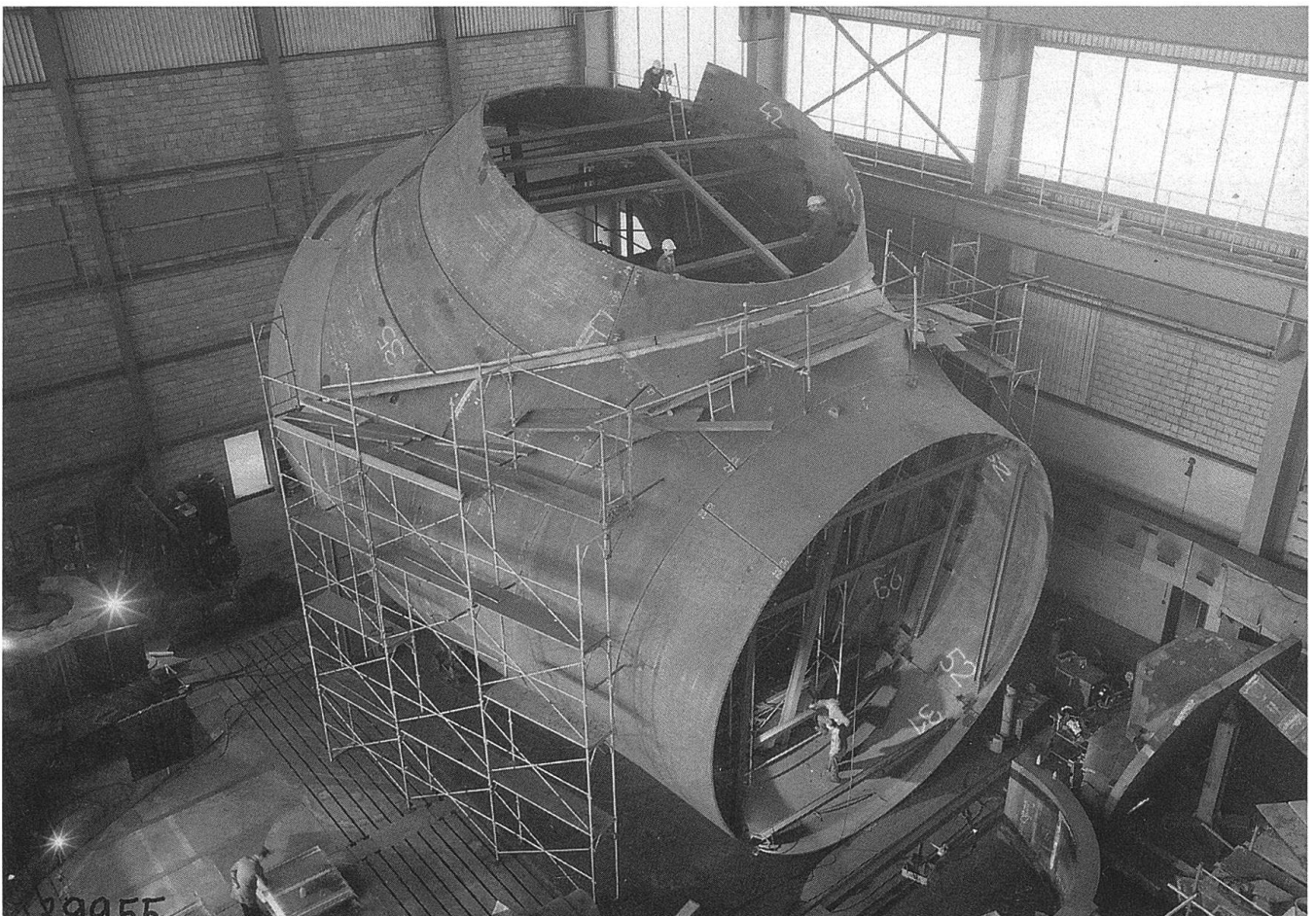
the seams. Indeed, the search for land to construct premises capable of housing modern equipment (which also involved appreciable technical and business risk) had already been under way in his father's time. A further difficulty was that the various Swiss firms in the sector were each engaged in an uneconomic struggle with foreign competitors. The answer appeared to be to coordinate their efforts, for which there was no lack of precedence. In 1961, for instance, the two Winterthur companies *Sulzer Brothers* and *Schweizerische Lokomotivfabrik*

had decided to «cooperate». Admittedly, this soon turned out to be less of a cooperation agreement than a take-over – or at best a merger.

*Escher Wyss* was also moving in the direction of cooperation. In mid-1966 the management issued a joint statement with *Sulzer* that the two companies had «decided on close technological and commercial cooperation aimed both at maintaining and expanding each partner's production range». This «concentration of effort, notably in research and development», was of urgent necessity if the companies were to prevail in the «extremely tough competitive struggle» as well as cope with the labour shortage prevailing at the time. A rider to the joint statement specified that each company was to «maintain its legal independence» and «continue to conduct its business with a separate administrative system and under its own management».

This coordination was underpinned by financial commitments, with the two companies exchanging parts of their equity. A further such exchange followed two years later. Although *Sulzer* was now the majority stakeholder in *Escher Wyss*, the latter retained managerial responsibility and the Escher-Wyss Group continued to operate independently. All that had changed was that the two partners were now cooperating on technical activities and combining their sales efforts abroad. In January 1967, the *Neue Zürcher Zeitung* wrote that Peter Schmidheiny had always advocated and worked for voluntary cooperation between companies, but up to then had not regarded the complete amalgamation of two companies as the desired solution to the problems faced by medium-sized Swiss mechanical engineering companies. «And now?» the newspaper asked: «Clearly, there has

*The inlet of this branch pipe destined for the Tarbela plant in Pakistan has a diameter of 13.2 metres*



now been a change of attitude that could have future implications extending well beyond the *Sulzer/Escher Wyss* case, which is probably an implicit admission that the approach to date is inadequate for dealing with problems on this scale.»

#### «Hard to take»

The *Escher Wyss* 1969 annual report spoke openly of «integration (...) into the *Sulzer Group*», thus bringing this interim stage in the two companies' relations to an end (they had already «defined» their respective areas of activity). In February 1968, agreement was reached between *Brown Boveri & Cie* and *Maschinenfabrik Oerlikon* on the one hand and *Sulzer Brothers* and *Escher Wyss* on the other. The outcome was the formation of *Turbomaschinen AG (TAG)* on 1 January 1969. The new company's headquarters were on the Zurich premises of *Escher Wyss*, and Peter Schmidheiny was elected as the first chairman. From now on the development, design and sale of turbocompressors and gas turbines – products hitherto manufactured by each of the companies independently – would be implemented by the new joint venture. Design and production were to be on the basis of standardized series. *Escher Wyss* transferred its steam turbine business to *Brown Boveri* on the same date, i.e. 1 January 1969: «We had to recognise that we lacked the capacity to build the large 600–1200 MW units the market was then demanding», Peter Schmidheiny was to say later. In exchange, *Brown Boveri's* turbocompressor business was transferred to *Escher Wyss*.

The «gradualist» strategy that had culminated in the *Escher Wyss* integration into the *Sulzer Group* was not spared huge criticism, however. Much of the Zurich company's management

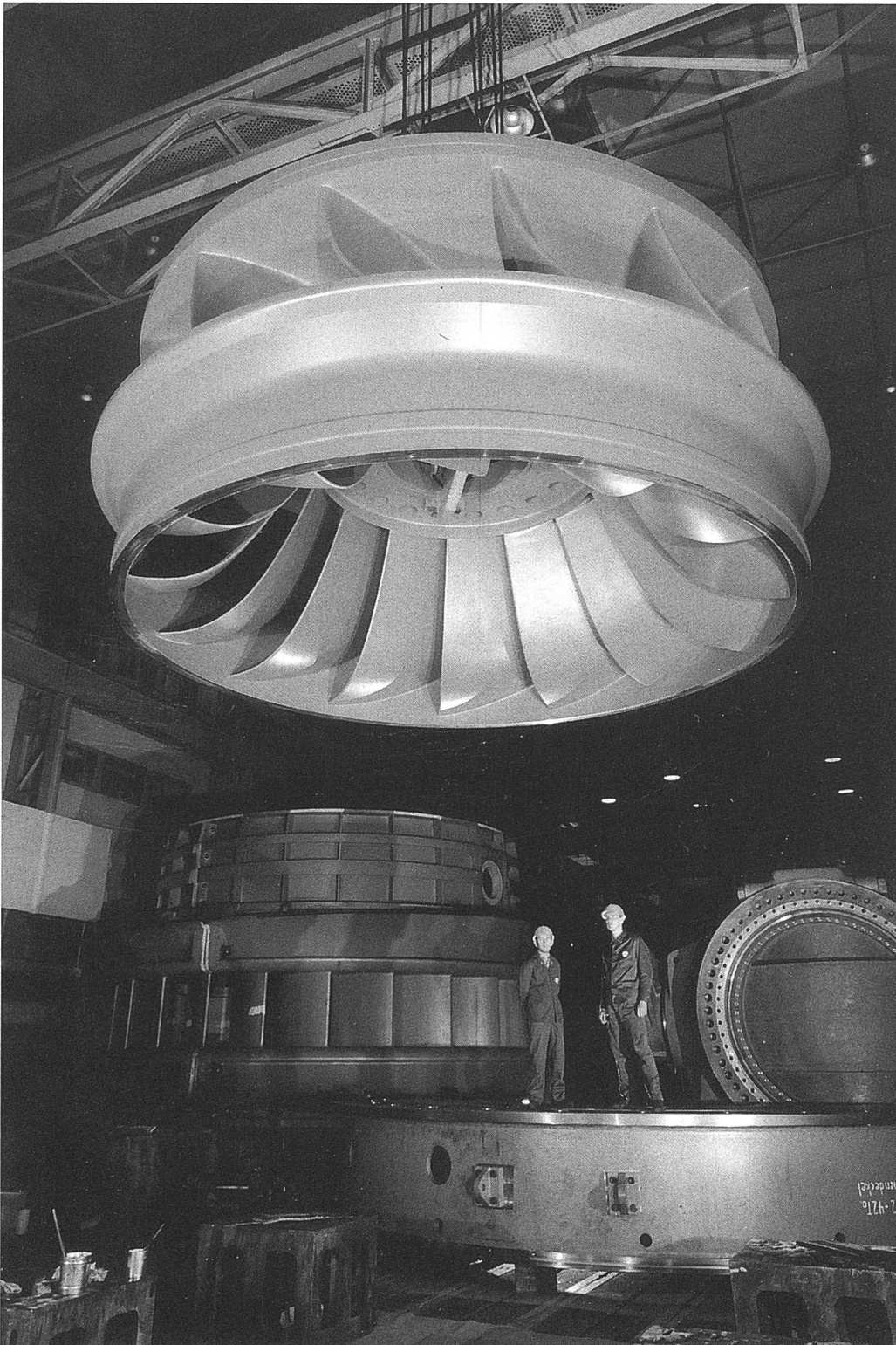
was stunned: «The Joint Division we could still understand but this was hard to take», one of the leading figures of the time commented later. A vigorous public debate started up. Peter Schmidheiny justified himself and his policy of concentration by presenting the issue in its wider context: «The fact that Switzerland was and remains obliged to respond to world trends has nothing to do with a striving for economic power; it is necessary if we are to retain our position on the world market. We all know that industry does not enjoy the protection that our farmers still need for their products.»

On 31 March 1971, aged almost 63, Peter Schmidheiny stepped down from active executive duties at *Escher Wyss* to make way for a younger generation. As chairman of the board of directors he remained available in an advisory capacity for a further ten years, continuing to chair meetings («people should know I'm still around if anything urgent happens») and devoting his time to the various foundations he had set up. However, he was to resign from his last position at the Zurich engineering company on 13 May 1981. His successor was *Sulzer Group* chairman Pierre Borgeaud, who no longer wanted «any more large single shareholders». At long last, therefore, the Schmidheiny family was relinquishing its major financial stake in the group – and without too much regret, as Peter Schmidheiny was to confess after his retirement. «After all», he smiled, «you can't take it with you.»

#### Head of the War, Industry and Labour Office

The *Escher Wyss* managing director and chairman was approached from all sides for his name and his wealthy business contacts, entirely to be expected for a man in his position.

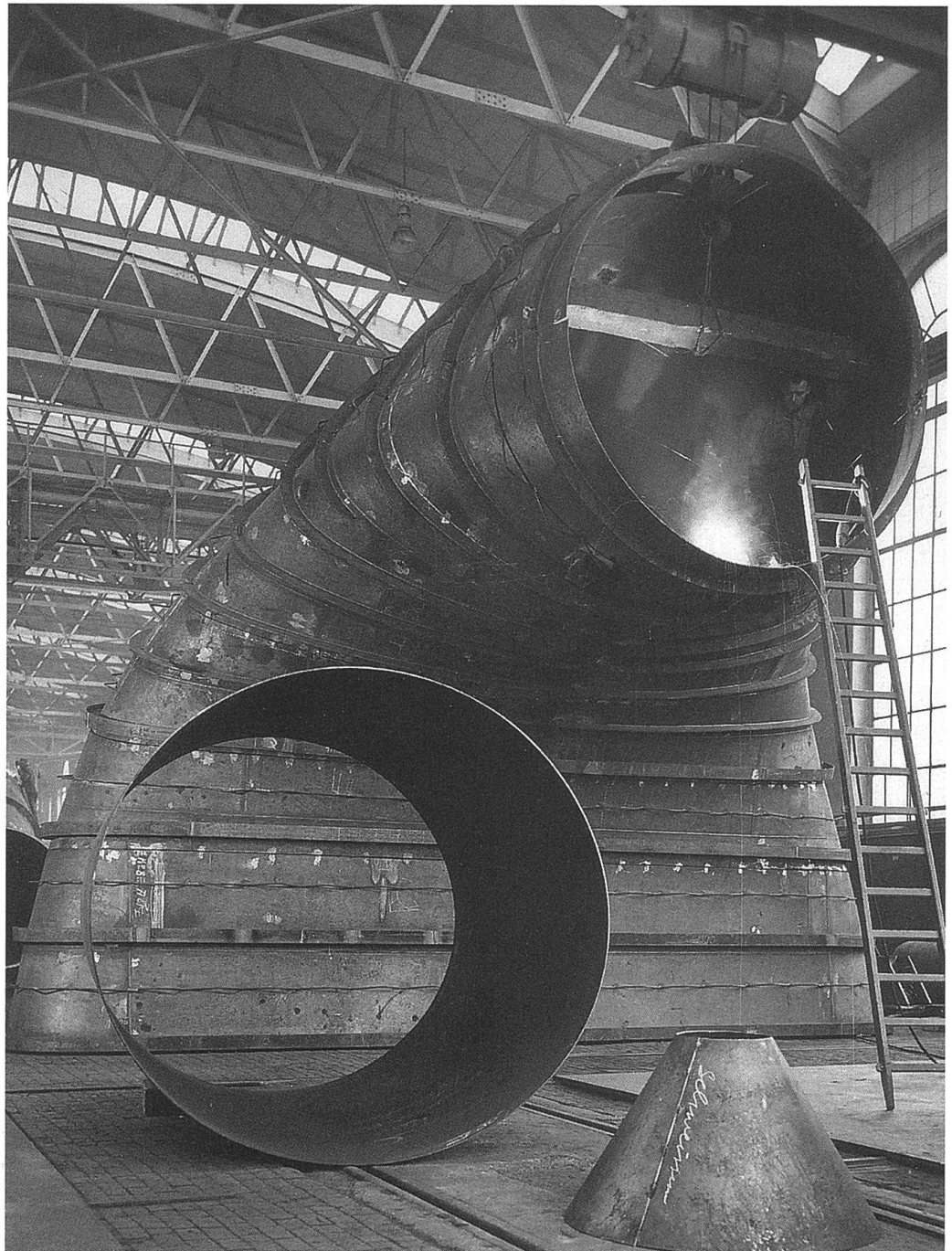
*Rotor disk of a Francis turbine in Karakaya, Turkey*



Politicians also tried – and failed – to win him over. Peter Schmidheiny had little ambition to shine in public life besides serving on his local council in Balgach for several years. He also stood once as a listed candidate for election to Switzerland’s National Council, an experience of which he said: «I didn’t even want to, especially as in the canton of Zurich it seemed

pointless anyway because liberalism was so strong there.»

However, he was also called on to serve his country in another capacity. Neither was this confined to the military, where he had risen to lieutenant-colonel in an artillery regiment. In April 1953 the head of the Swiss Department of Economic Affairs, federal councillor Rodolphe Rubattel, appoint-



*Welding work on the suction pipe of a Kaplan turbine at Escher Wyss*

ed him as head of the iron and machinery section of the War, Industry and Labour Office (KIAA). Five years later, on 1 April 1958, federal councillor Hohenstein appointed him as head of the entire office – this «shadowy organization» as Peter Schmidheiny was later to call it in a spirit of realism that was devoid of illusions. Thanks to both the infrastructure available to him at *Escher Wyss* and his business connections he was able to manage the office, which was taken very seriously

at the beginning, «fairly easily» until his resignation on 15 February 1971.

During this period he did, of course, hold other offices and perform other duties as well. He sat on several boards, primarily of those companies that belonged to the family or were closely associated with it. He was vice chairman at *Wild-Heerbrugg* from 1955 to 1983 (stepping down at the same time as chairman Max Schmidheiny); he was on the board at *Maschinenfabrik Oerlikon* from 1954 to 1967

and at *Sulzer Brothers Winterthur* from 1967 to 1982. From 1950 to 1978 he was also a member of the *Credit Suisse* board of directors which, he was subsequently to reflect, gave him some «welcome insights into banking». In the insurance sector, he was appointed to the board of *Winterthur Insurance* when it acquired *Eidgenössische Versicherung*. He also spent twenty-seven years on the board of the *Verein schweizerischer Maschinen-Industrieller* (Federation of Swiss Engineering Companies), which he joined in 1946, and «as a convinced economic liberal», was a leading light in the *Gesellschaft zur Förderung der schweizerischen Wirtschaft* (Society for the Promotion of the Swiss Economy) during the period 1950–1979. From autumn 1954 to spring 1977 he was a prominent member of *Redressement National*, formerly *Aktionsgemeinschaft Nationaler Wiederaufbau* (National Reconstruction Action Group), a conservative of the right-wing which his father had also belonged to.

Peter Schmidheiny did not find it difficult to step down from all the positions he held, and he would admit this quite openly: «It gave me no trouble at all. Quite honestly, once I'd resigned I'd resigned. This is different from many of my friends who, time and again, couldn't resist intervening in decision-making long after they should have stopped». Peter Schmidheiny, for his part, was happy tending his roses, vegetables and grapes «in the fresh air». He also had plenty of time to indulge in other hobbies, especially hunting, although he was attracted more by «the physical aspect» than the actual chase. That is why he had never regarded big game hunting and African safaris as «the ultimate». He was prepared to make an exception for «elk hunting in Sweden, though».

He was also a passionate mountaineer and climber, being a frequent visitor to the Engadine. He would be accompanied by his wife Ruth. Daughter of Dr Max Schiesser (for many years the *Brown Boveri & Cie* managing director), she gave birth to five children. «I taught her to love the mountains», Peter Schmidheiny said. Despite being four years his wife's senior he was destined to outlive her – she died on 7 February 1992.

## Chronology

- 1908** 12 July: birth of Peter Schmidheiny
- 1932** Mechanical engineering diploma from the Federal Institute of Technology (ETH)
- 1933** Unlimited partnership in *J. Schmidheiny & Co. Heerbrugg* – elected to Balgach local council (until 1937) –  
22 August: married Ruth Schiesser
- 1934** 26 February: birth of daughter Eva
- 1935** 2 March: Peter Schmidheiny is elected to the board of directors of *Zürcher Ziegeleien (ZZ)* – 7 May: birth of daughter Ariane Vera
- 1936** Peter's father, Jacob Schmidheiny II, takes a 100% stake in *Escher Wyss AG*
- 1937** Peter Schmidheiny joins *Escher Wyss*
- 1938** 22 June: birth of daughter Ursula
- 1939** 5 May: appointed manager of the hydraulics division at *Escher Wyss*; joins the board of directors in the same year
- 1943** 23 September: birth of son Jacob
- 1946** 1 January: succeeds his father as managing director – 4 May: birth of daughter Marina – September: joins the board of the *Verein schweizerischer Maschinen-Industrieller* (Federation of Swiss Engineering Companies)
- 1950** 25 February: elected to the board of directors of *Credit Suisse* (until 4 April 1978)
- 1953** 1 July: head of the iron and metal section of the *War, Industry and Labour Office (KIAA)* – 15 December: succeeds his father as chairman of the board of directors of *Escher Wyss AG Zürich* (until 1984)
- 1954** Cooperation between *Escher Wyss*, *Brown Boveri* and *Georg Fischer* on the testing of heat-resistant materials – Peter Schmidheiny joins the board of directors of *Maschinenfabrik Oerlikon (MFO)* (until 21 December 1967)
- 1955** 8 January: death of father, Jacob Schmidheiny II – Peter appointed chairman of the board of *Zürcher Ziegeleien*, continuing to modernize the company and diversify its activities – vice chairman of *Wild-Heerbrugg* (until 8 May 1983) – joins the board of directors and committee of *Rheintalische Strassenbahnen AG*
- 1957** Research cooperation between *Escher Wyss* and Geneva-based *Ateliers des Charmilles SA*
- 1958** 1 April: head of *War, Industry and Labour Office (KIAA)* (until 15 February 1971)
- 1959** Formation of joint division by *Escher Wyss* and *Maschinenfabrik Oerlikon (EW-MFO)* for cooperation on steam turbines, turbocompressors and generators – experiment ends when *MFO* integrated into *Brown Boveri*
- 1966** Mid-July: «cooperation» between *Sulzer Brothers Winterthur* and *Escher Wyss* based on the former «acquiring some of the equity» in *EW*
- 1967** 15 June: Peter Schmidheiny elected to the board of directors of *Sulzer Brothers Winterthur* (until 5 May 1982)
- 1968** February: *Turbomaschinen AG (TAG)* founded by *Sulzer-*

- Escher Wyss* and *Brown Boveri-MFO* (as from 1 January 1969), with Peter Schmidheiny appointed the new company's first chairman; *Escher Wyss* transfers its steam turbine business to *Brown Boveri* (also 1 January 1969)
- 1970** 3 July: Peter Schmidheiny succeeds his cousin Max Schmidheiny as chairman of the board of directors of *Rheintalische Verkehrsbetriebe* (until the end of 1988)
- 1971** 31 March: steps down from active managerial duties at *Escher Wyss*
- 1981** 13 May: resigns office as board chairman and managing director of *Escher Wyss*; he is succeeded by Pierre Borgeaud, chairman of the board of *Sulzer Brothers*
- 1984** 5 May: Peter Schmidheiny leaves the *Wild-Heerbrugg* board of directors – he also steps down as chairman of the board of *Zürcher Ziegeleien*
- 1992** 7 February: death of Peter Schmidheiny's wife, Ruth Schmidheiny-Schiesser

# The fourth generation

«There is no Schmidheiny superholding company»

In an interview that Max Schmidheiny's eldest son Thomas gave to the Swiss business journal «Finanz und Wirtschaft» in 1986, he stressed that there is «no Schmidheiny superholding company». He was reiterating the press release that appeared on 6 June 1984 after «Sir Max» had decided fairly early to divide up his corporate empire. The clear message that was being sent out at the time was that «there is no actual justification for regarding the Schmidheiny group as a homogeneous concern». The announcement also stated that the group was being divided up «in the firm conviction that it would serve everyone's best interests if each of the individual Schmidheiny family businesses could develop separately».

*Thomas Schmidheiny in front of the painting «Buste d'homme à la pipe» by Pablo Picasso*



And this is the way things were to stay. In fact, the family's building material interests had already been largely divided up back in the mid-twenties, when Ernst Schmidheiny I gradually began to move out of the brickmaking business, which was transferred to his brother Jacob II and then on to Jacob's son Peter and grandson Jacob III. As time went on, the business ties became looser and looser. The individual members of the «fourth Schmidheiny generation» eventually all went on to pursue completely different professional strategies. Stephan moved away from the near-construction business he had inherited and into the high-tech industry, and over the years he unburdened himself of actual operational management tasks, delegating them to others. Not least under the influence of his activities on the international platform, he left the narrower confines of the manager arena, preferring to call himself an «industrial architect». Thomas, on the other hand, concentrated on the building industry (with one exception) and was happy to continue playing an active top management role as chief executive officer.

**Thomas: «Concrete and all that goes with it»**

The construction segment comprising cement, «concrete and all that goes with it» proved to be Thomas Schmidheiny's element. Born on 17 December 1945 in Balgach in the Rhine Valley, he graduated from the *Swiss Federal Institute of Technology (ETH)* in Zurich with a joint degree in

business management and control and process engineering in 1969. In the classic Schmidheiny tradition, he set about learning the business «from scratch», mainly on assignments with «Holderbank» subsidiaries abroad, including a stint as shift foreman in Peru. In his capacity as technical director at *Cementos Apasco* in Mexico in 1970–71, he bore sole responsibility for the entire factory with an annual production of 600,000 tonnes and a staff of 340. He learnt a lot during his time in Mexico, particularly through the close contact with the workers. On returning to Switzerland in 1972, he enrolled in a course for junior executives at the *International Management Development Institute (IMEDE)* in Lausanne, obtaining a master's degree in business administration (MBA).

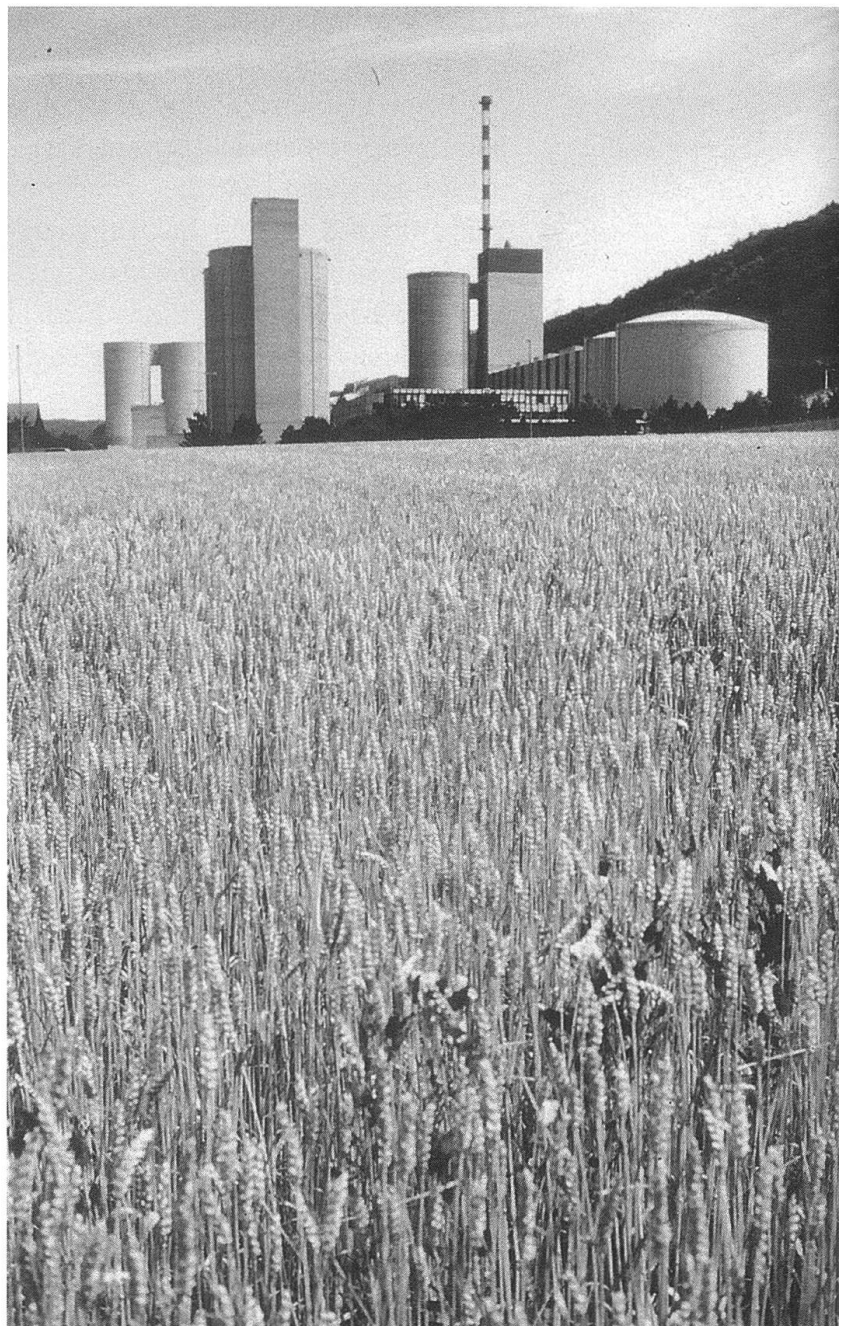
Thomas Schmidheiny was now ready to start his career at «Holderbank». From 1973 onwards he gradually began familiarizing himself with the group and in 1975 was appointed managing director of the Swiss cement factories merged under «Holderbank» *Financière Glarus Ltd. (HOFI)*, where his remit was to restructure operations and bring them into line with modern market conditions. At the same time, he ran the Secretariat to the executive committee, management and board of directors of *HOFI*. A year later, as newly appointed member of the executive committee with the rank of Senior Vice President, he was placed in charge of Swiss and Middle East operations within *HOFI*. In 1978 he rose to the position of chairman of the executive committee and managing director on the *HOFI* board, advancing to Deputy chairman of the latter body in 1980. When his father Max Schmidheiny divided up his interests in 1984, all the «Holderbank» participations were transferred

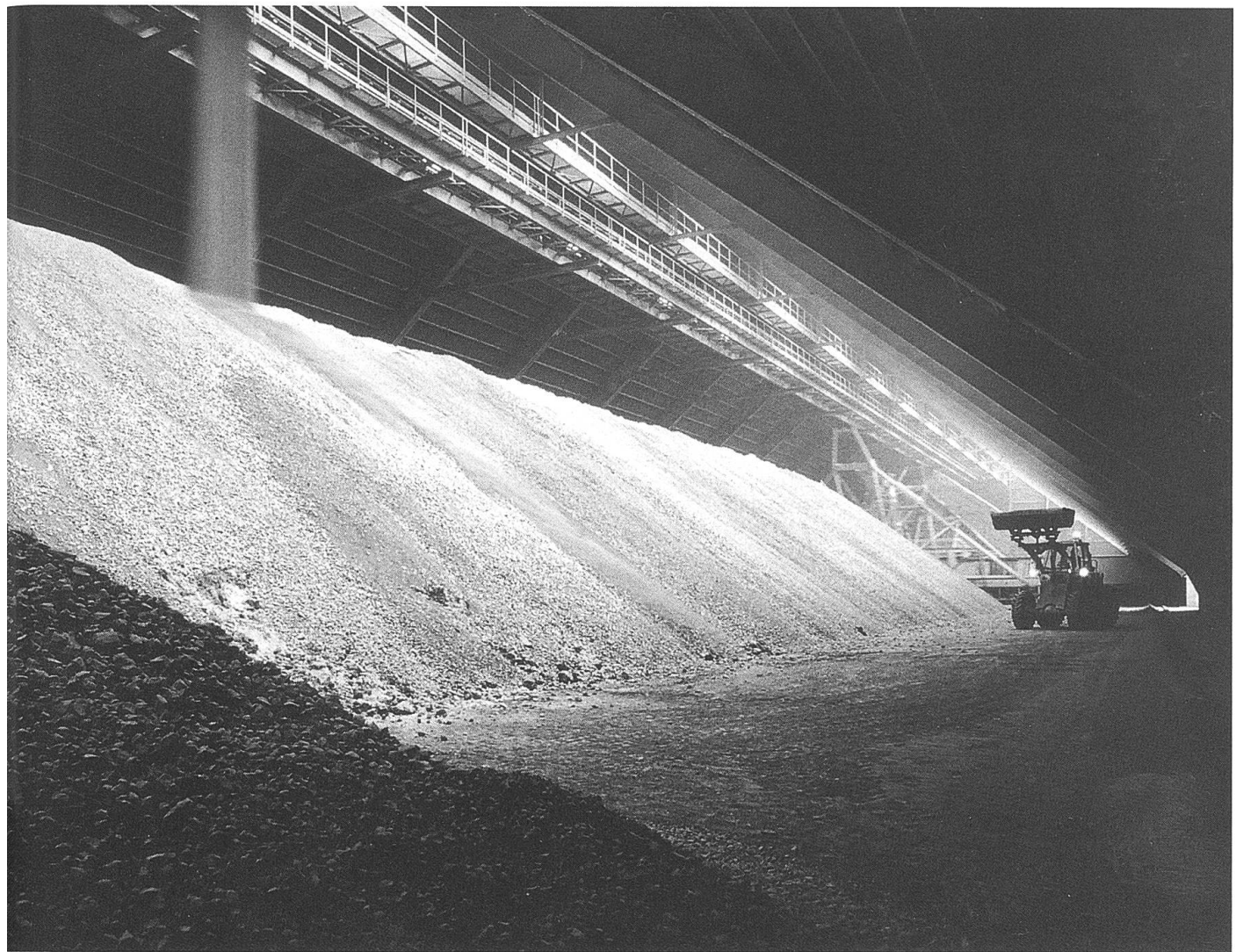
to Thomas, who then stepped down from the boards of *Amiantus* and *Eternit*.

### «Holderbank»: the world's largest cement producer

As chairman and managing director of «Holderbank», Thomas Schmidheiny achieved such a dominant position in Switzerland in the space of just one-and-a-half decades that the 1911 cement cartel had become redundant. He pulled off a major coup in May 1992, when he staged a series of acquisitions and engineered the extreme-

*The «HCB plant in Rekingen*

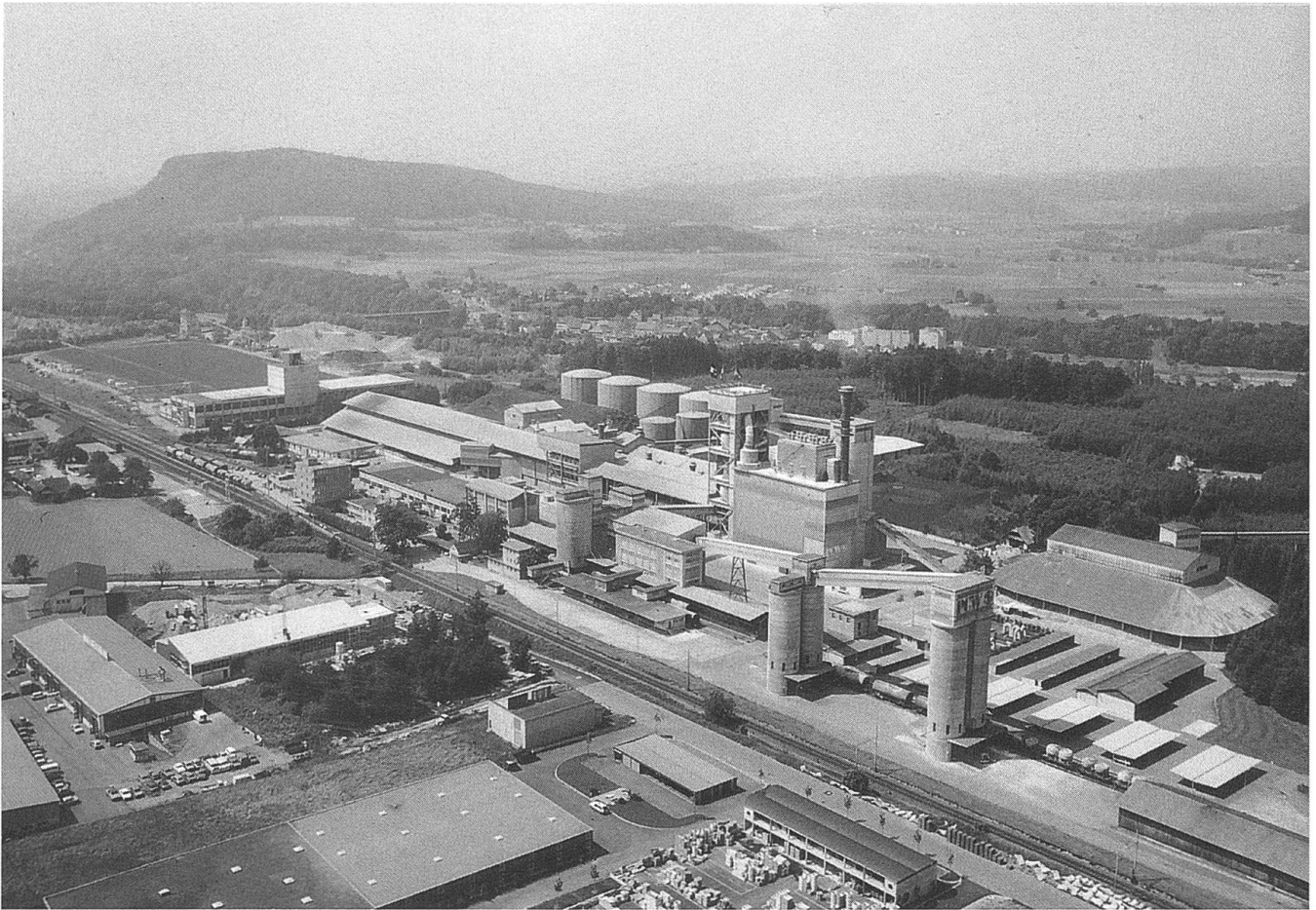




*Raw materials in storage at «HCB Rekingen»*

ly complex process of restructuring holdings to form the new billion-franc concern «Holderbank» *Cement und Beton AG* («HCB»). Now controlling a good half of the Swiss cement market, Thomas Schmidheiny had forestalled Switzerland's Federal Cartel Commission, which after eight years of laborious work had finally completed its «most complex, extensive and protracted investigation» into the cement cartel for nothing. The Commission's 300-page report was destined for the waste-paper basket. In January of the same year, this self-same Cement Cartel, *E.G. Portland*, had voted to dissolve itself at the end of 1994. All that was left was a new, voluntary transportation ordinance which propagated shipping cement by rail for ecological reasons.

Thomas Schmidheiny was not perturbed by the fact that the cartel had been replaced by a new major cement group. At the end of August 1993, he wrote: «There are still several independent cement producers in Switzerland. In the international arena, all Swiss cement manufacturers have to stand up to powerful rivals across the border and defend their market position in a spirit of free and fair competition.» «Holderbank» had of course also secured a predominant position in these very markets across the border from Switzerland and now ranked as number one cement producer in the world. Running to less than ten percent, Switzerland's contribution to total group sales took on somewhat more modest proportions in the mid-nineties. In Thomas Schmidheiny's



view, it was much more important to expand abroad in response to the increasing globalization of cement markets, a process which transformed cement «more and more into a cross-border bulk commodity».

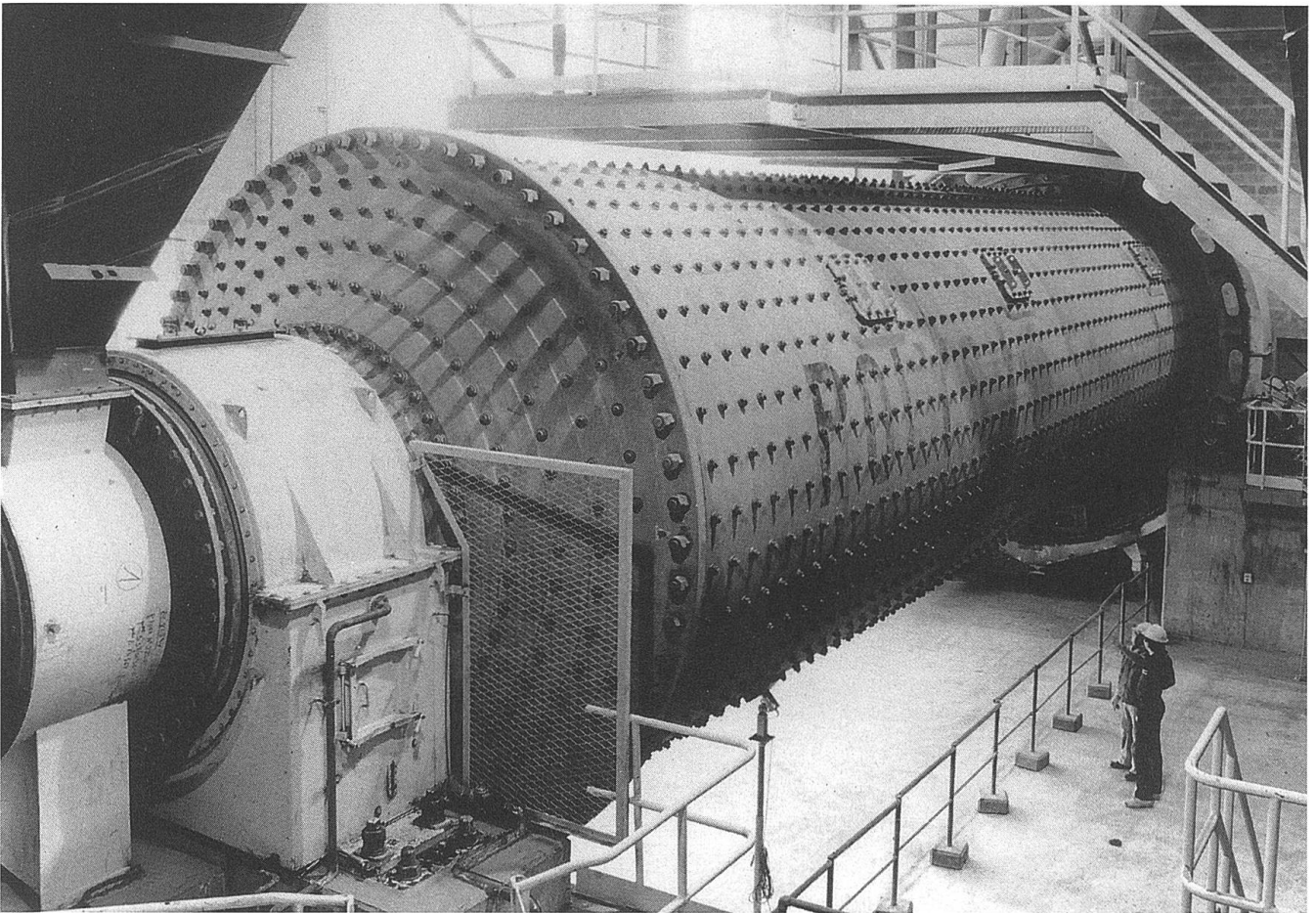
«Holderbank's» CEO took stock of operations in a speech delivered in January 1994: his group embraced «35 cement companies with 77 plants as well as 37 gravel and ready-mixed concrete firms together boasting a total of 100 gravel quarries and over 400 ready-mixed concrete operations». Thomas Schmidheiny also pointed out that «Holderbank» had group and affiliated companies in thirty countries on five continents. The group has nonetheless stuck to the principle of decentralized management. Even as «Holderbank» went from global strength to global strength, it still kept its small headquarters in Jona near Rapperswil in the canton of St. Gallen on the upper reaches of Lake Zurich.

### **Anchored in the Pacific Rim**

«HCB's Siggenthal plant

Thomas Schmidheiny went on to point out that in the period from 1912 (when «Holderbank» was founded) up to the outbreak of World War II the Swiss-based company began expanding in the direction of Europe and South Africa. After 1945, the group set its expansionary sights on North America, Latin America, Australia and New Zealand. The most recent stations of the «Holderbank» development campaign have been North Africa, Eastern Europe and Argentina. Thomas Schmidheiny is keen to stress that of the 36,000 employees working for the group at the time, «as many as 42% are based in developing nations and newly industrialized countries».

In recent years, Latin America has developed into one of the mainstays of group operations. A number of annual reports from the early nineties testify that Thomas Schmidheiny had «noth-



*The semimanufacture clinker is ground to cement in the mill following the addition of small quantities of gypsum.*

ing but positive news to report» on Latin American activities. In 1993, he openly described the region as a «jewel in the *Holderbank* crown». At the same time, the group's push towards Eastern Europe was taking off. This was a unique venture inasmuch as many Western European companies were still reticent to invest in the region, but it was none the less an experiment very much in line with the political views of the *Holderbank* CEO. Thomas Schmidheiny was one hundred percent behind Swiss membership of the *European Economic Area*. When Switzerland's electorate rejected the EEA motion in December 1992, he began to ask himself and others which Europe was going to be important for him and his group. His answer: «Our vision today is a Europe that stretches to the Ural mountains». As early as 1989 *Holderbank* started buying into cement plants in Hungary, followed by acquisitions on the

Czech and Slovak markets. The group subsequently established a «major base of operations with future potential» in Eastern Germany, the former GDR.

*Holderbank* then started to look even further east. In 1993, the group announced that it would be building a cement plant in Vietnam, hinting that it was contemplating expanding its reach of operations into China. Thomas Schmidheiny told the «*Badener Tagblatt*» newspaper in an interview published in spring 1994 that the «next major step is clearly to anchor the group firmly in the Pacific Rim». However, he was quick to add that «it will take around twenty years to implement our Asia visions». Elsewhere the *Holderbank* chief reiterated that a policy of global diversification guarantees his group «a secure leadership position on many markets independently of international events» and that this approach must be «consis-



*The Rohozník plant some 30 km to the northwest of Bratislava, one of the two new «Holderbank» bases in Eastern Europe*

tently pursued as a hedge against risks».

#### **«Conscious customer proximity»**

«Geographic diversification» was eventually followed by «vertical diversification». As executive committee member Max D. Amstutz put it, «*Holderbank*» has always adhered to the proverb «Cobbler, stick to your last» and will always do so. From the very outset, the group took a conscious decision not to branch out into non-construction sectors: «We have hived off everything that has nothing to do with our core operations», Thomas Schmidheiny himself reported.

And even within the building segment, «*Holderbank*» focused on those areas where the group had developed considerable know-how – concrete and related products. Every effort has been made to provide customers with a full service. In the words of Max Amstutz, the group «was transforming itself from a monoculture far removed from the market to a polyculture close to the market», gradually expanding the range of concrete products on

offer. In due time this embraced cement, gravel, additives, ready-mixed concrete, concrete chemicals and associated services. «*Holderbank*» did not simply start developing all-purpose construction chemicals but specialized in concrete chemicals, sticking strictly to its traditional product base. «Conscious customer proximity» or «downstream, customer-oriented and innovative marketing» are the expressions Thomas Schmidheiny used to describe this approach, which was to be faithfully followed by all group subsidiaries.

#### **«Active leadership role» in environmental protection**

A further principle that the group was to subscribe to with the same degree of global conviction is environmental protection. «*Holderbank*» has set itself the goal of assuming an «active leadership role» in this area, well aware «that the world's resources are limited» as the group wrote in its environmental mission statement in the mid-nineties: «Only an intact, vital environment is a precondition for growth

and quality of life for future generations. Accordingly, we accept the major responsibility facing industry in general and the building sector in particular to protect our environment.»

What does this mean in practice? That the raw materials used in the industry are to be used sparingly and, wherever possible, replaced by «residual materials» or recyclable substances, that ecologically conducive techniques of manufacture and distribution should be applied, that packaging should be reduced to a minimum and that here too recyclable, biodegradable materials ought to be used, and that wastage and emissions ought to be kept as low as possible when employing and processing «*Holderbank*» products.

Requiring substantial amounts of thermal and electrical energy, the cement production process is a perfect example of an area where environmental principles are clearly coming into play: nonfossil fuels such as waste oils, old tires or vegetable refuse are being used more and more in place of coal and petroleum. State-of-the-art plant facilities are equipped to incinerate waste wood or, thanks to modern waste gas technology, can even readily burn sewage slurry.

As regards the disposal of «residual materials», «*Holderbank*» is committed to cooperating closely with research centers and actively assisting other industries and the public sector, provided the disposal processes chosen produce better results from both an ecological and a business angle than traditional methods would.

Thomas Schmidheiny has underlined his group's intention to implement forward-pointing environmental projects come what may – true to the line taken by Winston Churchill that the only way to be truly consistent is to go with the times.

### **Intermezzo at Wild-Leitz**

It was in the interests of the family that Thomas Schmidheiny did in fact once depart in a big way from the principle of focusing group operations on the building sector only. From 1984 on, besides running the «*Holderbank*» group, he took charge of the company *Wild Heerbrugg AG* and its subsidiary *Leitz* in Germany. This was an enormous challenge and, as Schmidheiny told current affairs journal «*Politik und Wirtschaft*» in mid-1990, one that «pushed him to his personal limits». In the course of one year, for instance, he went to Wetzlar some thirty times but none the less managed to tackle the problems at *Wild* and *Leitz* with his customary flourish.

Reorganization was no easy undertaking since the company's ownership and management structures did not become fully apparent until quite late – from today's standpoint too late. Thomas Schmidheiny was working towards an integrated group – and the problems this entailed were all too familiar to him as «*Holderbank*» CEO. Under his supervision, *Leitz* was taken over 100% and the new *Wild-Leitz* group established in Wetzlar. Aarau-based rival *Kern & Co. AG* was also taken over at the same time (something that *Wild* had long been hoping for). Subsidiary *Omag* in Mels was shut down to concentrate operations on the Heerbrugg plant, which had achieved some impressive productivity increases. These measures alone represented a first efficient step in the direction of creating a group. The appointment of the then 49-year-old Markus Rauh as chief executive officer marked the start of a management restructuring which was to be decisive for future developments.

The big change came on 22 March 1989, when Thomas Schmidheiny's high-tech intermezzo came to an end.

A controlling share package in *Wild Leitz Holding AG* was sold to Stephan Schmidheiny's *Unotec Holding AG*. In return, older brother Thomas took over *Gipsunion*, a group of Swiss gypsum manufacturers under Stephan's control that had been operating in Holderbank in Aargau for some time. In December of the same year, *Eternit AG* (with production sites in Niederurnen and Payerne) was transferred to Thomas, allowing him to focus entirely on the building materials industry.

**«Switzerland has lost its claim to special status»**

It was Thomas Schmidheiny's urge to become actively involved in politics that also left him feeling he was reaching his «personal limits». From 1972 to 1980 he sat on the municipal council of Balgach and from 1980 to 1983 was a member of the cantonal parliament of St. Gallen. When he took over *Wild-Leitz*, he suddenly found himself as «*Holderbank*» chief executive having to perform a double function that largely forced him to abandon his political career, something he was «very unwilling to do», as he admitted in an interview with «*Finanz und Wirtschaft*» in 1986.

When relieved of the task of running the optics group, he returned to the political arena. He soon made a name for himself in the early nineties with his harsh criticism of Switzerland's rigid structures, its encrusted business community and the inability of the government and politicians to act, all of which incited the wrath of conservative stalwarts. On 8 May 1990 he delivered a talk at the Solothurn Chamber of Commerce entitled «Switzerland at the crossroads: tradition or new beginning». Thomas Schmidheiny stated that he wanted to air his «doubts as to whether the wealth and future potential that our

forebears had worked to achieve could be sustained and expanded on beyond the turn of the century without drastic changes». He repeatedly asserted that «Switzerland has lost its claim to special status», an opinion he reinforced in a speech given at Linth Press in May 1993 entitled «Vision of a Switzerland of the future» which caused quite a stir. Thomas Schmidheiny bemoaned the fact that three barriers were blocking the path to a new future: «a democracy mired in democratism, (...) a political framework more conducive to administering legacies than plotting future courses, (...) a state increasingly unable to tackle the jobs at hand». And this at a point in history when «all around Switzerland a dynamic process of redevelopment and renewal has been underway for years».

**Stephan: the «industrial architect»**

This global «process of redevelopment and renovation» was also to shape Stephan Schmidheiny's career. Born on 29 October 1947, Adda and Max Schmidheiny's second son confessed to Werner Catrina that his youth had not been particularly harmonious. «I was weighed down with problems, wondering about the meaning of life. I was concerned about the threat to our environment, and also pondered on the question of wealth. I was certainly less of a child than my friends of the same age.» However, none of this stopped him from developing a nose for business and technology very early on in life. At the age of 15 he bred rabbits, sold them on the market and with the proceeds bought himself a motorbike, which he took apart, fixed and put back together again. It was then that he discovered a «natural affinity to all technical things. I sensed somehow that this could not be the whole world. (...) And I also felt that it was point-

*Stephan Schmidheiny  
with his mother Adda,  
1990*



less for me to study something I had a natural aptitude for anyway». Stephan thus opted to «complement» his education by studying law, a decision that his father «Sir Max» dismissed as a complete mistake. In his view law was more or less a «futile diversion». However, when writing his doctoral thesis, Stephan was still able to call on his father's knowledge of the law: during his time as National Councillor the latter had launched the idea of an investment risk guarantee for developing nations that later found its way into Switzerland's legislation. And Stephan's doctoral dissertation was on this very subject in 1972.

Stephan was later to claim that his legal training enabled him to «analyze complex situations and translate the findings into simple decisions». He had, however, never once considered actually becoming a lawyer. Dreaming of doing development aid work, Stephan felt that his calling was in the Third World. He was ready to sign a contract for an assignment to Uganda, but time was against him. Still one year after the successful putsch against dictator Idi Amin, the country was in

the grips of chaos and terror, and Stephan had to abandon his plans. Instead he entered the family business – and where else but on postings to far-away countries.

**«Lugging asbestos sacks with the best of them»**

In true Schmidheiny tradition, he had learnt his trade from scratch. In 1969, during a five-month assignment with *Eternit* in São Paulo, Rio and Salvador he «lugged asbestos sacks with the best of them». It was then that he developed his love for Latin America, a passion he was to live out to the full years later. He first had to make his way in the family firm. On completing his studies in 1973, he started his first real job, again abroad. Stephan spent a year in the planning department of South African-based *Everite*, the *Eternit* subsidiary that his Uncle Ernst II had set up in the middle of the war in 1941 with considerable financial support from his brother Max, Stephan's father. *Everite* was to cause Stephan quite a headache in the eighties following media reports on social and political unrest.

At the outset of his career, Stephan had other worries though. On returning to Switzerland in 1974 he was appointed head of sales at *Eternit AG* in Niederurnen and on 1 January 1975 managing director. The following year overall management responsibility for the Swiss *Eternit group* passed from his father to Stephan, who also successively took charge of international operations. When Max Schmidheiny divided up his interests in 1984, older brother Thomas was put in charge of «*Holderbank*» operations and Stephan was appointed head of *Eternit*.

The latter had already begun restructuring the *Eternit group*. In 1976 he demanded that the «guiding principles of the company founders be dynamically aligned to the changing environment». What did that mean? That the strategy of «coordinated decentralization» so valued by father Max was essentially continued in such a way that group companies retained «far-reaching powers» and were «generally free in the formulation of their business policy», as *Amiantus* executive committee member Max Graf put it. At the same time, Stephan Schmidheiny also planned to move away from the somewhat «intuitive style» practised by his father and to impose a modern form of management at the companies under him. «I want order, and I want to be well organized», he wrote in a memo dated 1980.

The restructuring of the *Eternit group* brought with it the question of where Stephan Schmidheiny should establish his future home and business. Back in 1977 he had recognized the wisdom of living separately from his brother, and even the question of being located in Heerbrugg could be no more than «secondary». «An independent domicile will provide an opportunity (...) to begin or continue in my own fashion, unburdened by tradi-

tion.» Stephan found and moved into his new domicile in 1978: Hurden on the upper reaches of Lake Zurich, in the Canton of Schwyz. It was there he set up a new home and a modest headquarters with an astonishingly small staff.

### **The battle of the «wonder fibres»**

The *Eternit* restructuring drive also posed an extremely thorny problem that proved to be a source of major concern for Stephan Schmidheiny. He was faced with the basic issue of whether the legacy he had inherited was still valid and viable. Evidence seemed to be mounting that the «wonder fibre» asbestos was a possible cause of illness. In the sixties, Dr. Irving Selikoff, then medical advisor to one of the unions representing insulation material workers and later Director of the Cancer Research Institute at Mount Sinai Hospital in New York, published a controversial report on the cancer risks that asbestos workers were exposed to. The study triggered endless debates on both sides of the Atlantic and was decried by numerous advocates of the «wonder fibre» as a plot to start a «campaign of hysteria».

In the early seventies, unions and left-wing politicians in Sweden demanded a ban on asbestos. The then 25-year-old Stephan Schmidheiny was sent there by his father in 1974 and experienced what he later referred to as his «Sweden shock». To start with, he still believed that asbestos was basically here to stay but soon realized that he had been mistaken and gave up the staggered, pragmatic line he had initially advocated. On 15 November 1976 he set up a *New Technologies task force* whose job it was to find alternatives for asbestos.

From the very outset the *NT task force* was fully aware of the technical and financial difficulties it would en-

counter. Stephan Schmidheiny's toughest opponents were within his own family. Still in 1984, his father Max branded Selikoff's misgivings as «insanity» and continued to view asbestos as harmless. Towards the end of the eighties Stephan Schmidheiny described his fundamental conflict with his father in the following diplomatic terms: «My father found it difficult to share my concern and understand the consequences I had taken. (...) He was convinced that I was overreacting and felt sure that the general commotion would die down sooner or later.»

Initially Stephan Schmidheiny also met with a lack of understanding among the people in his own group and at associated companies. Business friends either accused him of betraying the cause or expressed grave doubts about the new *Eternit* policy and the possible ramifications. His critics included Fritz and Rupert Hatschek from Vöcklabruck in Austria, heirs to Ludwig Hatschek, who had discovered asbestos cement at the turn of the century and filed it for patent protection on 30 March 1900. The same view was taken by the heads of *Eternit's* French and Belgian operations, who tried in particular to bring their German partners around to their way of thinking since the Federal Republic had been inundated by a veritable anti-asbestos wave in the early eighties. After heated discussions, the association of asbestos cement producers *Eternit Asbestzement e.V.* (headed by *Eternit Berlin*) and the German Ministry of the Interior finally reached an agreement under which the asbestos cement industry pledged that by the end of 1990 it would only manufacture asbestos-free building materials.

Stephan Schmidheiny was unshakable in his endeavours to replace asbestos at all his production facilities

across the globe. In his view, the *NT program* applied just as much to Costa Rica as to Brazil, South Africa, Germany or Switzerland. This was no easy undertaking, particularly in the Third World. He had no problems implementing his plan in countries such as Costa Rica with no asbestos reserves and where climatic conditions facilitated the replacement of the expensive «wonder fibre» by other, cheaper materials. However, it was difficult to enforce the *NT program* in countries such as Brazil, where asbestos was an inexpensive commodity, potential health risks were played down in public debate and *Eternit* was not the sole operator on the local asbestos cement market. In such cases, Stephan Schmidheiny had no choice but to resign himself to the fact that he was unable to make the world a better place, as he once lamented in a private discussion.

### **Away from the building industry**

The whole wearisome asbestos affair may very well have been one of the reasons that prompted Stephan Schmidheiny to withdraw his companies from broad segments of the *Eternit* industry and diversify into non-building operations. As he has admitted on more than one occasion, he has always felt drawn to high-tech firms. At the same time, Stephan also contemplated a complete reverse of strategy. He was beginning to take the view of his forebears' philosophy that the owner of a company should also be responsible for operational management no longer necessarily held true for large segments of industry. Without forfeiting his personal influence, he started to build up a portfolio of holdings in major companies, some of which were listed in the stock exchange.

Since the seventies Stephan Schmidheiny's career has been marked by a rapid succession of acquisitions and divestments of significant companies both in and (in line with the diversification drive that began in 1979) outside the construction industry:

– Sale of *asbestos mines* and production sites, complete divestiture of *Eternit* operations in Brazil, Bolivia, Colombia, Mexico and later South Africa, hive-off of certain Middle East interests. Sale of Belgian and German *Eternit* plants. Shutdown of *Eternit* activities in Italy (where the *Eternit* group fell victim to the construction crisis raging in the country). 1989: *Swiss Eternit operations* (with production facilities in Niederurnen and Payerne) and the *Gipsunion* taken over by Thomas Schmidheiny; gypsum producer *Rigips* (inherited from his father) sold out to a UK firm.

– From 1978 on: participations in Swiss and foreign manufacturers of *metal constructions* and *steel, plastic and fibre cement* products – ventures that did not always prove a success and some of which had to be dropped.

– In Latin America, investments in companies involved in *water supply systems*, the manufacture of *prefabricated houses* and *asbestos-free fibre cement*. From 1982 on: engagement in *forestry ventures* and *iron and steel works* in Chile. One of these companies was later to cause Stephan Schmidheiny a dilemma in 1992, when a conflict flared up over iron dust emissions, causing critics to question his credibility as an advocate of unconditional environmental protection.

– Takeover of *Testina AG* from father Max Schmidheiny; main lines of business: building development, real estate management and property agents. 1993: sold to *Göhner Merkur*.

– Takeover (from Max Schmidheiny)

of *Privatbank und Verwaltungsgesellschaft*, an asset management bank involved in the purchase of BBC shares in the early sixties. Renamed in 1987 to *Privatbank Zürich (PBZ)*; following a critical phase, takeover mid-1989 by *Union Bank of Switzerland*, whose board of directors Stephan Schmidheiny has been on since 1978.

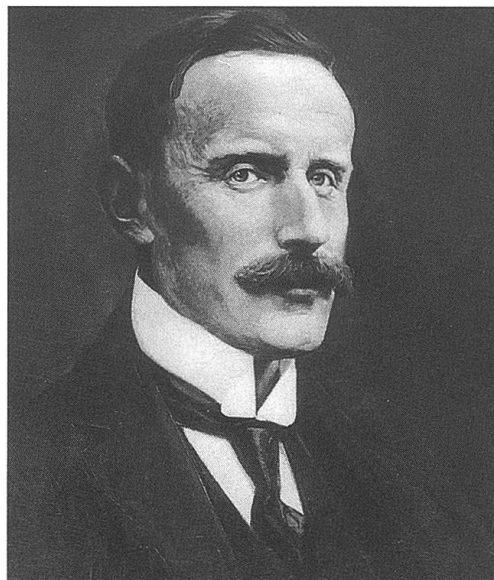
– 1979: acquisition of *Distral-Holding AG Zug*, comprising the *Schmidt-Agence* and *Azed* kiosk groups (both with widespread Swiss networks) – sold in 1989 to the *Merkur group* (whose CEO Georg Krneta was also board chairman of *Landis & Gyr*) – and packaging company *Roxxo* with bases in Switzerland, Belgium and the Netherlands – sold in 1990 to *Frantschach Vienna*.

– Takeover of father Max Schmidheiny's *Brown Boveri* share package, which Stephan later added to. 1985: Stephan Schmidheiny elected to the *BBC* board of directors' committee. Following the subsequent merger between *Asea* and *Brown Boveri* in 1988, appointment to the board of directors of the newly created *ABB*.

– 1985/86: participation in watchmaking group *Société Suisse de Microélectronique et d'Horlogerie SA Bienne (SMH)* with Nicolas G. Hayek. Schmidheiny took the view that the watchmaking industry deserved to be «saved as a Swiss bastion». In the first two years he pursued a «very active role on the board committee and as permanent consultant». At the end of 1993 he gradually began to withdraw from his financial commitment to the *SMH*, prompting a change in the shareholder pool.

– 1986: election to the board of directors of the electrical engineering group *Landis & Gyr AG Zug*. Like his father Max before him, Stephan Schmidheiny was called in to help with succession planning; he was interested in

Heinrich Landis (left)  
and K.H. Gyr, who  
founded Landis & Gyr  
AG in 1914



the enterprise «as a family problem, without initially wishing to invest himself». However, at the end of 1987 he bought a majority shareholding in *Landis & Gyr*, which he later scaled back to 38% and in May 1994 to just under 34% (sale of some 80,000 *Landis & Gyr* shares to the industrial holding arm *Industrie Holding* of the newly formed *Bank am Bellevue BB*). Expansion of market base in North America, Eastern Europe and Asia together with Willy Kissling, President of the *Landis & Gyr* executive board since October 1988.

– March 1989: takeover of optics group *Wild-Leitz Holding* from brother Thomas. Early 1990: merger with *Cambridge Instruments Company plc*; *Leica plc* founded.

– Spring 1990: acquisition of a majority shareholding in Asia specialists *Cosa-Liebermann (CL)*, a marketing and service group for high-grade capital and consumer goods.

#### Calling in a managing director

In addition to his many global business obligations, Stephan Schmidheiny has taken on other duties over the years. In 1984, he became a member of the *European Round Table (ERT)*, a group of European indus-

trialists who have set themselves the task of strengthening the economic development of our continent and – in Schmidheiny's words – stopping the spread of «Eurosclerosis». The association has also put out a series of reports. In 1989 he was elected to the board of directors of *Nestlé SA Vevey*. In May of the following year he was instrumental in engineering the merger between the *International Management Development Institute (IMEDE)* and the *International Management Institute (IMI)*, whose president he was, to form the Lausanne-based *International Institute for Management (IMD)*, where a *Stephan Schmidheiny Chair of Family Enterprises* has been established.

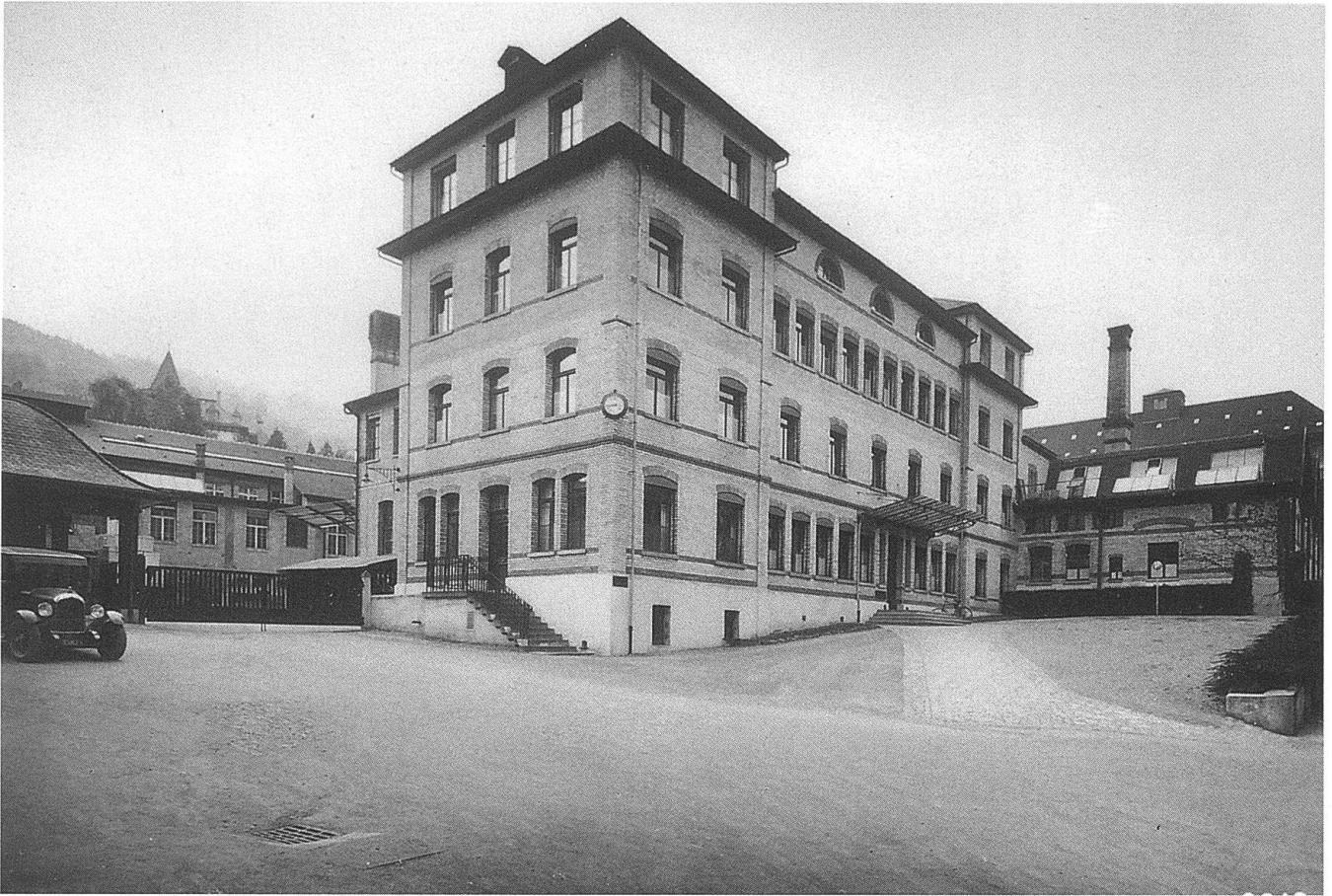
Stephan Schmidheiny split his group into three divisions at the end of 1989:

– *Unotec* with holdings in *Landis & Gyr*, *Leica*, *SMH* and *BBC/ABB*;

– *Nueva* with participations in Swiss and foreign manufacturers of near-construction products (steel, plastics, fibre cement), with the focus of operations on Latin America;

– *Anova* with a portfolio of trading and real estate interests.

After Stephan Schmidheiny had been actively engaged in the promo-

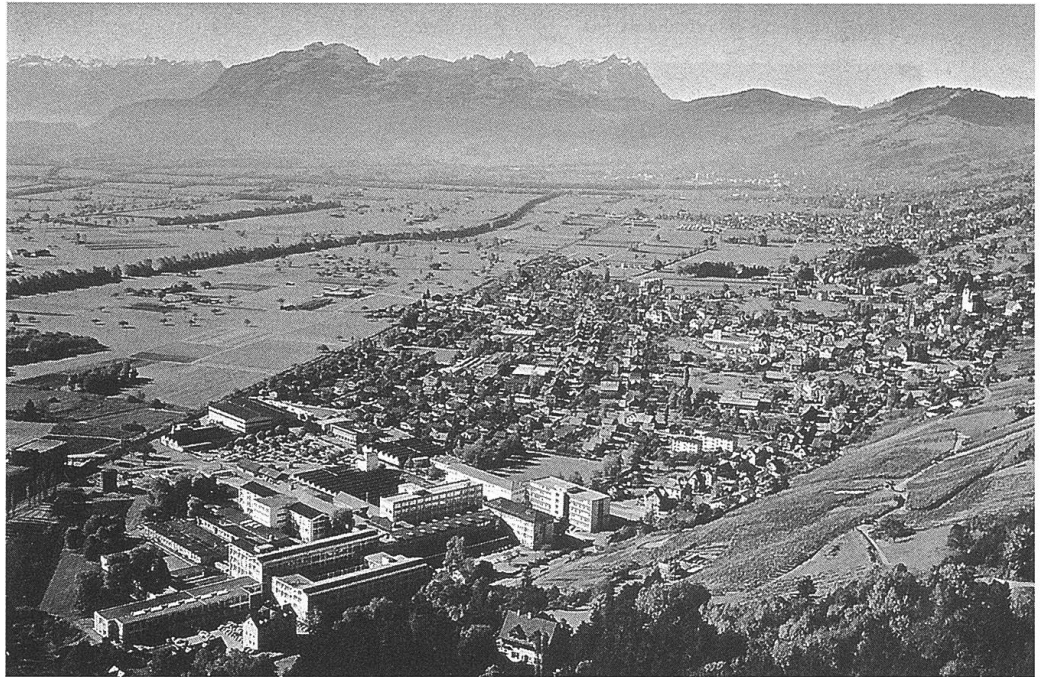


*From its modest beginnings in 1914, Landis & Gyr in Zug...*



*...has developed into a major group: view of a modern production site*

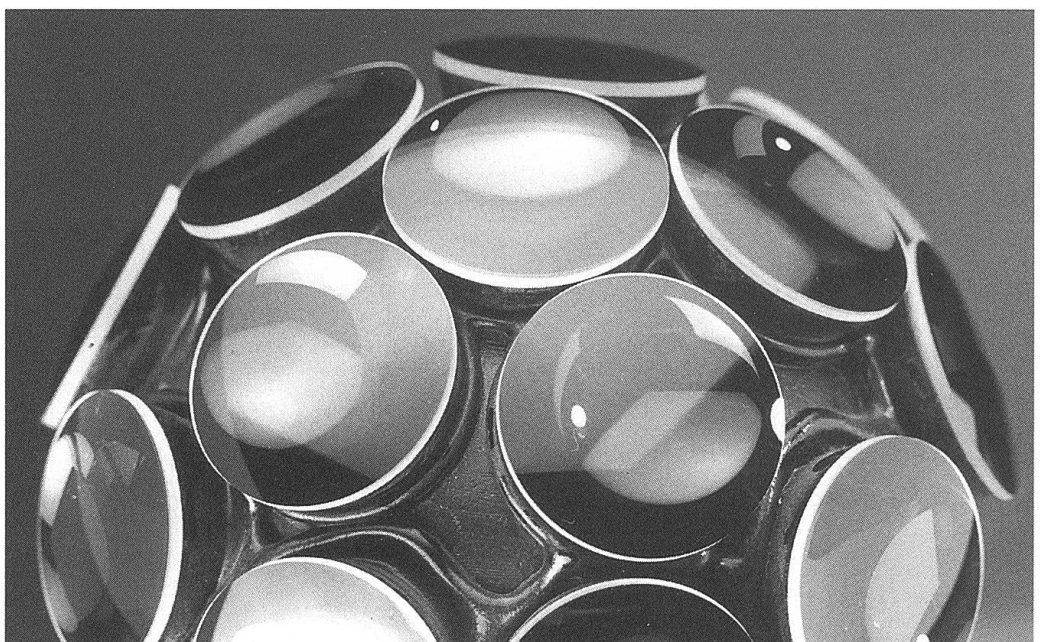
*View of the Rhine Valley; in the foreground is the Wild-Leitz plant at Heerbrugg (now Leica); at the top center are the Alpstein and the Säntis*

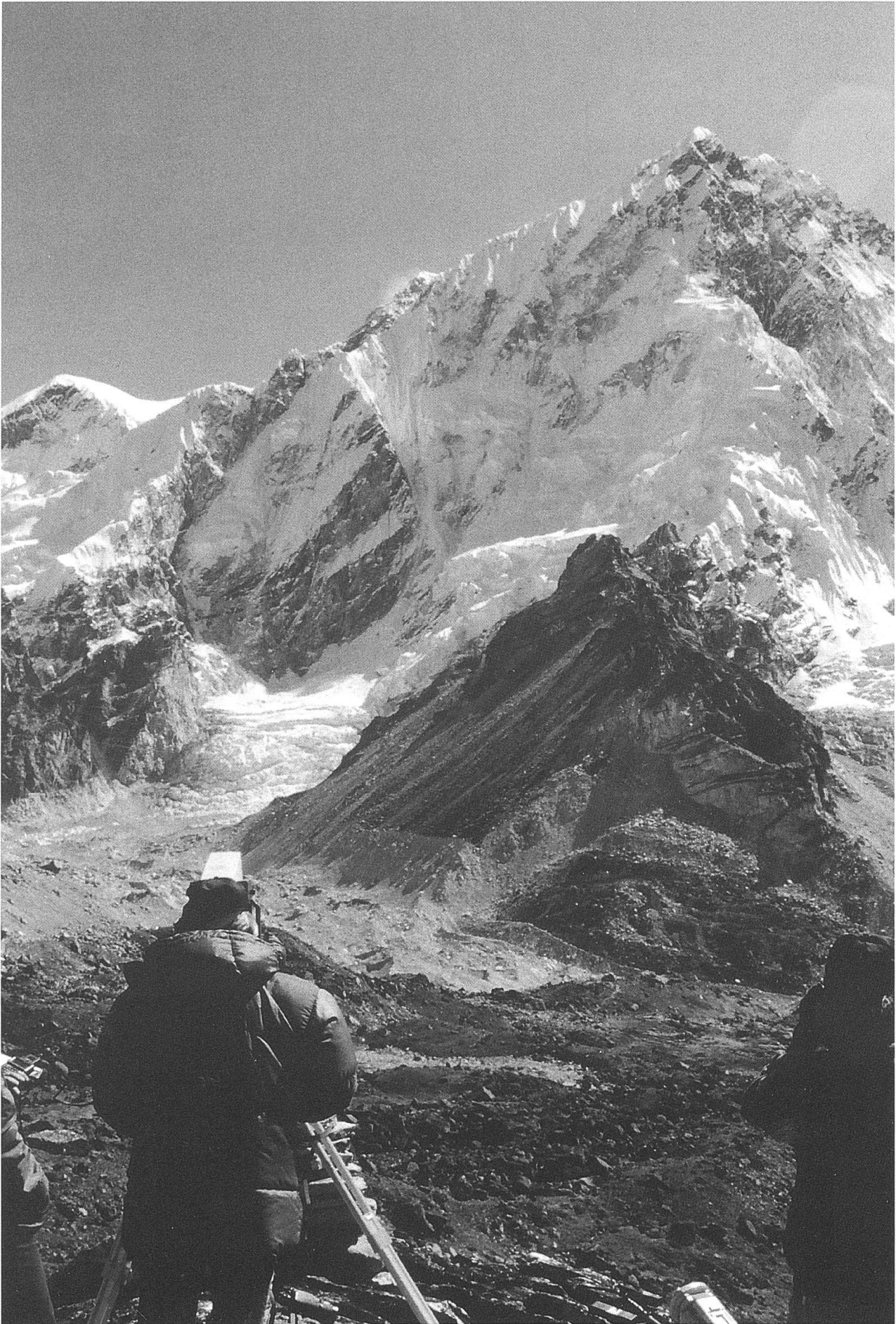


*Optic coating at Leica in Heerbrugg: the workshops look more like laboratories than factory buildings*



*Polishing of the lenses employed in the manufacture of optical equipment at Leica in Heerbrugg*





*Mount Everest was remeasured at the end of September 1992 with the aid of state-of-the-art Wild technology*

tion of environmental protection for some two years, he felt it was time for a sweeping change within his group. In early December 1992, he wrote: «A critical appraisal of the management structure of my group has led me to the clear conclusion that I require assistance in the performance of my many and varied responsibilities.» Much to the surprise of the public at large, 57-year-old Robert Jeker, who for ten years had been president of the executive board of *Credit Suisse*, resigned his office effective 31 March 1993 to take over as managing director of the holding companies *Unotec*, *Anova* and *Nueva* on 1 April of the same year.

According to the official communiqué from Hurden, Jeker's appointment was to be seen «against the backdrop of the far-reaching global economic changes posing numerous different challenges for the group and its affiliates». In plain language, Stephan Schmidheiny, as he himself conceded, felt that over the preceding two years he had neglected his groups somewhat – certainly at least at holding company

level. He was too fascinated by the other tasks he had been devoting more and more time to. Being on a global plane, these tasks appealed to the sense of «higher motivation» that he had long been seeking to channel his entrepreneurial activities into and which «since childhood» he had felt to be a «vision and calling».

### **The vision of «sustainable development»**

This turn of events in Stephan Schmidheiny's life was predated by the offer of an international mandate in 1990. In September of that year he was designated *Principal Advisor for Business and Industry* by Maurice Strong, General Secretary of the *United Nations Conference on Environment and Development (UNCED)*. For the industrialist this marked the start of a hectic period of worldwide trips, encounters and intense discussions on the «fundamental problem of humanity» that was to occupy him for months: the question of «sustainable development». This term had played a major role at the 1987 *World Commis-*

*Stephan Schmidheiny, Chairman of the Business Council for Sustainable Development, with Maurice Strong, General Secretary of UNCED, on the occasion of the presentation of his book «Changing Course» in May 1992*



sion on Environment and Development presided over by Norwegian Prime Minister Gro Harlem Brundtland. According to the report entitled *Our Common Future* issued at the time, sustainable development should allow people today to satisfy their needs without preventing future generations from satisfying theirs.

It was patently obvious that business leaders from across the globe could make a decisive contribution to achieving «sustainable development». Essentially, this was the rationale behind the remit that Stephan Schmidheiny had received from Maurice Strong with an eye on the UN Environment Conference to be held in Rio de Janeiro in June 1992. In the course of some five months, Schmidheiny managed to enlist fifty top business leaders from all corners of the globe to join the newly formed *Business Council for Sustainable Development (BCSD)*. In conjunction with his fellow members, Council Chairman Schmidheiny produced a comprehensive book entitled «*Changing Course – A Global Business Perspective on Development and the Environment*». Published in twelve languages, the book contains an analytical section and numerous case studies showing which approaches companies could adopt to combine the dynamism of industrial production with environmentally tolerable development and so achieve balanced and «sustainable economic growth» or what Stephan Schmidheiny refers to in his book as «eco-efficiency».

When it first appeared in March 1992, «*Changing Course*» met with a lively echo from the world's media. On 4 May of the same year, Stephan Schmidheiny presented a copy of the book to U.S. President George Bush at a White House reception, a moment which the author of the work and the

Chairman of the *BCSD* ranks among the highlights of his career. The Rio de Janeiro *Earth Summit* took place one month later. The laboriously drafted papers which the conference generated hardly represented the revolutionary results that certain optimists had dreamt of. Despite the immense efforts that had gone into staging the summit, it was quickly overshadowed by major league politics. Stephan Schmidheiny for his part had never regarded the *Earth Summit* as the ultimate goal but an «important milestone on a long and arduous road».

The majority of members voted in favour of keeping the *BCSD* alive to be able to set up special *task forces* to carry out decentralized and detailed analyses of specific aspects of sustainable development. Stephan Schmidheiny remained Chairman of the Council one year longer than originally planned before handing over the office to Anand Panyarachun, former Prime Minister of Thailand.

That a representative of a newly industrialized country should assume the presidency of the *BCSD* was no mere coincidence. Sustainable development is a global issue of major significance to industrial nations and Third World countries alike. It has always been in Stephan Schmidheiny's nature to devote his full attention to the Third World, primarily in a region that seems to him to hold much promise for the future: Latin America. 1986 saw the founding of *Fundes*, an institution that small and medium-sized companies in the region can turn to for credit guarantees and advice.

#### **Switzerland: a negative balance**

The activities of the *BCSD*, which «only make sense on a global platform», have naturally given Stephan Schmidheiny a certain distance to his home country of Switzerland. Pri-

vately he once conceded that he felt just as much at home anywhere else in the world as he did in Switzerland. And yet, he keeps a watchful eye on this self-same Switzerland – and is certainly no less critical than his older brother Thomas. On 9 November 1989 Stephan Schmidheiny gave a talk to the *Zurich Society of Economists* on the subject of Switzerland in international competition. The *Swiss Association of Trade and Industry (Vorort)* published the speech at the end of the month and it met with hefty criticism and even some indignation. Schmidheiny professed to being a Swiss «through and through». He presented a respectable balance sheet for Switzerland Inc, detailing the following assets: «a high standard of education, top quality products and services, peaceful labour relations thanks to a tradition of cooperation, innovative research, a spirit of enterprise, cosmopolitan openness, political stability, a solid infrastructure, and excellent conditions for raising capital».

However, this positive assessment was largely placed in perspective: for Stephan Schmidheiny the picture of a «perfect Switzerland» has ceased to be valid. He spoke of «a declining willingness to accomplish (minimalism), a trend towards allround protection (full insurance cover mentality), a rampant rise in demands (having-your-cake-and-eating-it attitude), a tendency towards isolationism (fortress mentality), and a growing complacency (blinker thinking)». In Stéphan Schmidheiny's view, these human behaviour patterns («I'm almost tempted to say: these typically Swiss vices») combine «fatefully (...) with structural factors such as a lack of flexibility, a slow-moving political apparatus» (embracing the much-venerated «politics of small steps» and

the Helvetian brand of «compromise mechanisms»), «a hardening of the political fronts, a proliferation of regulations, vanishing tax breaks, and a dearth of venture capital or entrepreneurial commitment».

In the course of 1991 a number of business leaders, professors and publicists produced a collection of studies in book form on the topic of *Swiss economic policy in international competition*. In collaboration with Fritz Leutwiler, the former President of the Swiss National Bank and then co-chairman of *ABB*, Stephan Schmidheiny wrote an introduction reiterating the critical thoughts on the state of Switzerland voiced in his 1989 address. «In this rapidly changing environment, Switzerland, hitherto spoilt with success, has to prove itself anew. (...) We are beginning to doubt our ability under a virtually non-interventionist market system to promote efficiency and prosperity and at the same time to secure social progress and a natural environment capable of self-regeneration.»

### **Alexander: a different mould of Schmidheiny**

Besides sons Thomas and Stephan, Adda and Max Schmidheiny had two other children that went entirely their own ways: daughter Adda Marietta, born in November 1944 and who later settled in the United States (a special foundation for the village of Pagig in Graubünden was established in her name), and son Alexander, born on 25 March 1951. Max Schmidheiny, for whom achievement was the ultimate goal, would also like to have seen Alexander launch a successful career in business. «Anyone who proved himself to my father to be a doer could have anything he wanted from him», Alexander once claimed. And it was this very proof that the youngest of the

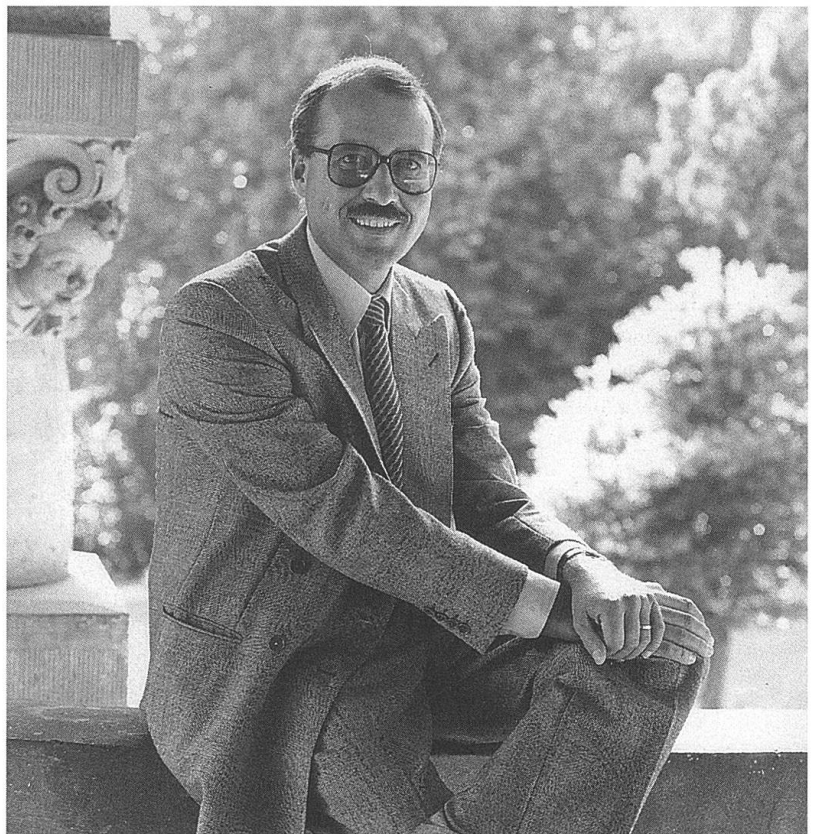
Schmidheiny brothers was unable to provide. He was, in his own words, «a revolutionary, a product of the '68 movement».

In that eventful year of 1968, Alexander was 17 years old, an age at which he should at least have made a decision on what course of study he intended to pursue. This was when the big argument broke out with his father, who wanted his youngest to study engineering at the *Federal Institute of Technology* in Zurich. Alexander would hear nothing of it; he dreamt of a combination of physics (which he studied for four semesters) and philosophy. Also enrolling for courses at the University of Fribourg, he went on to study economics, a choice which his father only barely approved of. Alexander never graduated; he spent three years on the editorial staff of the Swiss business journal «Schweizerische Handelszeitung», a period which he felt prepared him a great deal for life.

Father Max found it hard to accept that his youngest son was not going to make a businessman in his own mould. When he had eventually come to terms with this fact, he proved to be generous, letting Alexander live his own life. Max's wife Adda had played a major part in bringing about this change of attitude. As Alexander's mother she was familiar with his traits and wanted to give him a chance to «be different». As Stephan Schmidheiny so succinctly put it once: «Father wanted a successful child, Mother a happy one.»

### **Californian wine and Swiss ski wax**

It was also thanks to Adda Schmidheiny that Alexander did become a manager of sorts for a while. During a visit to California Stephan Schmidheiny bought a nine-year-old 27-acre



vinegrowing estate with the French name *Cuvaision* located near Calistoga on the Silverado Trail in the Napa Valley. He also subsequently acquired another 400 acres of land further south, closer to San Francisco. Essentially, wine was nothing new for the Schmidheiny family. To the southwest of the «Rebhof» manor where Max and Adda Schmidheiny lived was a two-acre vineyard, and it was here that the owners carefully tended their own brands of wine: the *Heerbrugger Riesling-Sylvaner* and the *Heerbrugger Rebhof*.

*Alexander Schmidheiny, 1989*

The decision to buy *Cuvaision* was very much in line with Adda's wishes. She had always shown a keen interest in Californian vines, all the more so as they had been likened by a local connoisseur and winegrower to «diamonds in the rough just waiting to be cut». With its white Chardonnay and red Cabernet-Sauvignon, *Cuvaision* very soon figured among the most notable wines in the United States and Europe. The Americans initially had a



*The «Rebhof» at Heerbrugg, residence of Adda and Max Schmidheiny*

little trouble getting their tongues round the French name. Early labels bore the phonetic rendering «Quway-sawn» to help them overcome pronunciation difficulties.

On his first trip to the States in the summer of 1980, Alexander Schmidheiny went on a one-day excursion to the family vineyard. He was quick to recognize that «something could be made out of the estate» and so brother Stephan appointed him «patron» of *Cuvaison*.

Shortly after joining the ranks of California's winegrowers, he embarked upon another venture in Altstätten, where in 1916 Jakob Tobler had set up a small workshop that produced household cleaning goods during World War One. The business flourished to become *Toko AG (Tobler & Kompagnie)* around 1933. Making a name for itself selling ski wax, the company expanded under its founder

and especially his sons and grandson. It exported its products with the black and yellow trademark all over the world. In 1982, Hans Jürg Tobler decided to sell off part of the firm, which was facing financial difficulties. On 30 September of the same year, Alexander Schmidheiny took over *Tobler & Co. AG*, the sales companies *Skimatic AG*, *Toko France S.A.R.L.* and *Deutsche Vertriebsgesellschaft* as well as the Bregenz-based Austrian production company *Toko*. Ninety or so jobs in the Rhine Valley had thus been saved; *Toko* remained Swiss but despite numerous attempts at restructuring was always to prove a major headache.

Alexander never saw the company get back on an even keel. He died of heart failure on 2 February 1992. *Cuvaison* was transferred to Thomas Schmidheiny – a problematic legacy following the devastation caused by

77. Internationales Lauberhorn-Rennen  
Wengen 12./13 Jan. 57

Das Lauberhorn ist das  
schönste Rennen  
Toko ist das beste Wachs  
Roger Staub

Die österreichische Internationalmannschaft  
bedankt sich für Ihre "befigeltten"

Tokowachse:

Schranz Karl

Toni Sailer

Anton Spirig

Anton Spirig

Anton Spirig

Anton Spirig

Anton Spirig

Anton Spirig

Anton Spirig

Anton Spirig

Anton Spirig

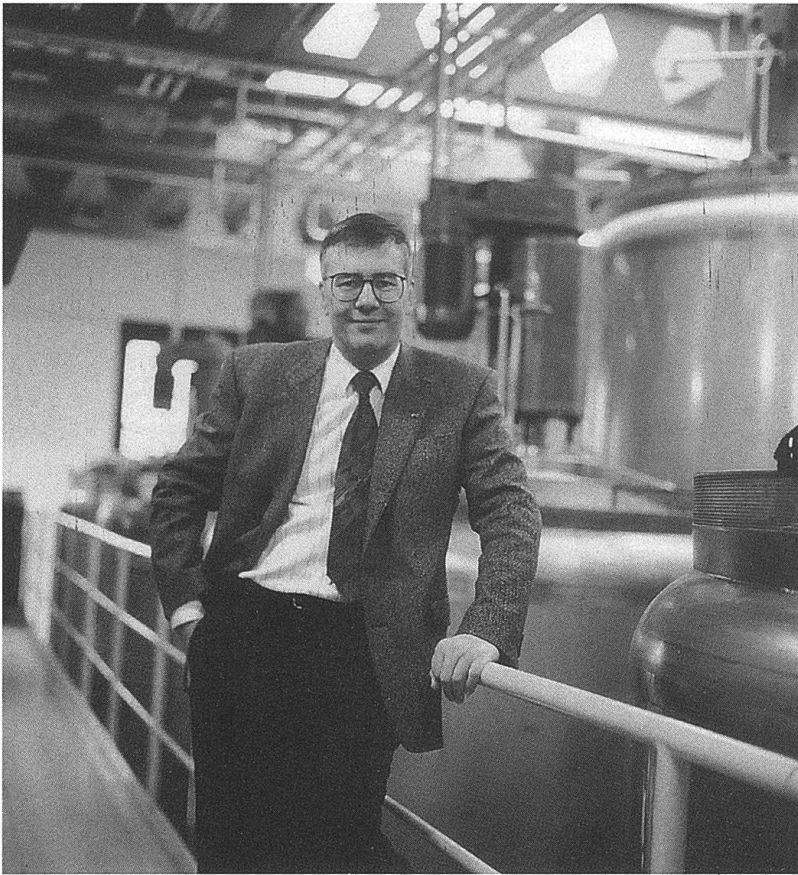
Entry in one of Toko's visitors' books bearing the signature of the reigning Swiss champion Roger Staub on the occasion of the International Lauberhorn Race on 12–13 January 1957; underneath are the signatures of the Austrian national team, including champions Karl Schranz and Toni Sailer.

vine pest. Toko was sold to Zürcher Ziegeleien Holding under Jacob Schmidheiny III and merged with subsidiary Arova Mammut AG, specializing in mountain sports articles.

### Jacob III: more than just bricks

This was one of the steps that Jacob Schmidheiny took as chief executive

of Zürcher Ziegeleien to avoid focusing operations entirely on the construction industry. In his drive for diversification he pursued an unhurried but consistent course. As he pointed out at the 1980 General Meeting, he was well aware that «branching out to non-core activities entails certain business risks and that even the most me-



*Jacob Schmidheiny III*

ticulous of analyses cannot identify and evaluate all aspects of new technologies and new markets».

His circumspection was no surprise. Even his decision to work in the brick industry was not an easy one. Born on 23 September 1943 and raised in Zurich, Jacob, the second of Peter Schmidheiny's five children, had more of a flair for the natural sciences. On finishing high school, he enrolled at the *Federal Institute of Technology*, where he soon came to realize that he was «not the researcher type». He switched to economics and in 1971 obtained a degree in that subject from the University of Zurich.

His love of nature endured, as did his enjoyment of walking and his passion for photography – a passion he was to give free rein to in later years, when in 1977 he published a collection of photos of the former Soviet Republic of Armenia. And even as a fifty-year-old industrialist he lament-

ed the fact that he had never had a darkroom, something he had wanted since childhood: «And when would I ever have the time to use one?»

He soon turned into a man of action. As a student he claimed he «would rather do practical work than study», which explains why he later spent time working in a variety of areas at different industrial companies as well as in regional planning. In 1974, he went to *Compagnie de Construction Sulzer* in Paris, returning to Zurich one year later, partly because his work permit had run out and partly because a visit to *Zürcher Ziegeleien* had made it clear that the company – in common with others in the industry – was in the throes of a crisis. The situation in 1975 was evidently a lot worse than it appeared on the surface: the construction industry had been hit by a severe slump and sales were down by at least a third. Staff and management at the company had failed to make contingency plans – the crisis seemed to have taken everyone by surprise.

On 1 January 1977 Jacob Schmidheiny was appointed to the executive committee of *Zürcher Ziegeleien (ZZ)*. One year later, as managing director, he assumed overall responsibility for operations. He also took on the office of chairman of the board of directors in 1984.

From the very outset, Jacob Schmidheiny faced the awesome task of restructuring the group and «bringing about a change in mentality – a tough school» as he later acknowledged. *Zürcher Ziegeleien* was forced to do early what other companies did not begin doing until years later. State-of-the-art methods were tried and tested, including lean production and the deployment of new materials and novel products to supply to existing and future markets.

## Safeguarding the long-term future

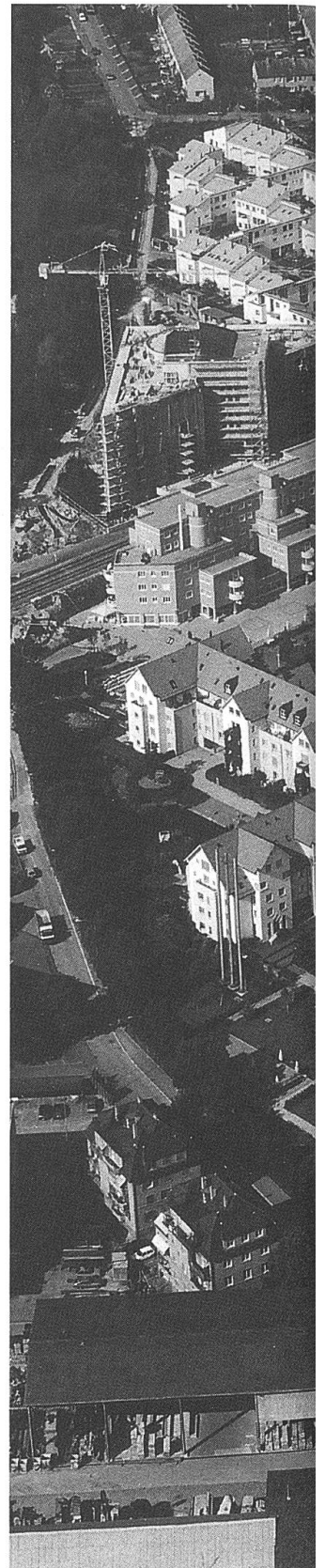
The significance of heavy building materials, which twenty years previously had accounted for some 90% of turnover, was declining considerably. In 1993, crude building products generated 35% of sales (with tiles alone making up 21%). In keeping with this trend, other product lines such as insulating materials, varnishes, paints and plasters expanded over the years. In 1980, *Zürcher Ziegeleien* ventured to put a foot outside the actual construction market, a development that in Jacob Schmidheiny's view was «crucial to safeguarding the company's long-term future». The group moved into consumer and industrial products, including upholstery foams, mattress fillings, sponge articles and non-CFC-containing special polyurethane foams for technical applications in the auto industry and other segments. Further additions to the product range were fire hoses, ropes, belts, sports and leisure articles, mountaineering equipment, lifting and safety devices, ski wax and rucksacks.

The development of new lines outside the building material sector was the result of a persistent expansion drive at home and abroad through the acquisition and modernization of suitable companies in Switzerland, Germany, France and the United States. The real estate business also began to take on more importance. As early as 1912 during the founders' meeting, Jacob's great uncle Ernst Schmidheiny senior extolled the virtues of land and property as the «most precious asset» a company could hold. Brickworks need to secure reserves of suitable-grade clay years in advance. For decades now *Zürcher Ziegeleien* has had to buy vast plots of land, some of which are sold off again – and not

always at the best terms – once reserves have been exhausted.

The group's real estate portfolio is still impressive. Following the closure of the *Tiergarten* brickworks in Zurich's Wiedikon district, the site (almost 100,000 square meters) was rezoned in 1974. The initial development project drafted by *Zürcher Ziegeleien* met with hefty opposition – and would hardly have been viewed as desirable from today's standpoint. After years of administrative and political to-ing and fro-ing, the City Council finally issued special planning regulations in 1982, dividing the entire brickworks site into three zones, two of which were sold. For the actual Tiergarten location covering a total area of 61,000 square meters ZZ was considering a 541-apartment project to be erected in three stages. Jacob Schmidheiny involved himself in the planning and construction phases and saw to it personally that a city development was built that had a distinct village feel and lots of green areas. «Not luxury apartments, but dwellings offering more than the average in terms of quality and space», as he told the «Tages-Anzeiger». Considering who had commissioned the project, it was only logical that the apartment houses boasted imaginatively designed tile roofs. And *Zürcher Ziegeleien* in no way attempted to conceal the fact that the decision to build was dictated by business considerations. The group wanted to see its investment yield a return which they hoped would make up the major part of earnings during any construction slump.

How strongly the *Zürcher Ziegeleien* group had expanded and positioned itself became clear when in 1984 staff relocated to an imposing eight-storey office block in Zurich's Giesshübel district. Appearances can





*The Tiergarten development built by Zürcher Ziegeleien between 1986 and 1993, bordered by the Üetliberg railway (top), Friesenbergstrasse (center), Talwiesenstrasse (front) and Bühlstrasse (left)*

be deceptive though: the building does not house a grossly inflated HQ. True to an old Schmidheiny family tradition, the group is strongly decentralized, as also befits the brick-making trade: «Unlike cement, bricks are semimanufactures directed at a local market. Small manufacturing units are called for – as well as a decentralized management structure.» One of the first things that Jacob Schmidheiny did was to reduce his overheads, consciously keeping his administrative staff and board of directors modestly sized. To give the individual management divisions as much scope and authority as possible, *Zürcher Ziegeleien* went over to a holding structure in 1992, deconcentrating the various lines of operation and making them as flexible as possible.

#### «Thorough rethinking»

The Giesshübel office building boasts another unique feature: for ecological reasons the spacious tile and glass construction was not fitted with air conditioning. Environmental protection has become a watchword at *Zürcher Ziegeleien*, and under Jacob Schmidheiny the company has «subjected operations to a thorough rethinking». This was not an easy task in the sectors the group worked in. The brickmaking division aimed at working clay reserves as sparingly as possible in order to preserve the habitats of endangered species of plant and animal indigenous to the quarry sites, both disused and still in use. Despite an increase in the degree of mechanization, energy consumption had to be kept low or where possible even reduced. Although it may not be any harder for the paint and varnish divisions to implement ecological measures, it is certainly equally difficult. Priorities include developing environ-

mentally friendly products, informing customers on how to use them properly, coming away from noxious or harmful solvents, and manufacturing water-dilutable paints. Companies have to devise disposal and recycling models for purifying plant effluent without harming the environment.

However, environmental protection has its limits for Jacob Schmidheiny when «ideological wrangling over the very existence of industry begins to assume greater importance than preserving our natural surroundings». At the *Zürcher Ziegeleien* AGM on 2 May 1991 he reproached critics for wanting the «products» but not the «production».

#### Faith in the will of the Swiss to achieve reform

Jacob Schmidheiny had thus entered the political arena. He has never been afraid to level criticism at present-day Switzerland: «What we desperately need in Switzerland today», he said at the same 1991 AGM, «are concrete measures designed to improve business conditions and our competitive base. Unfortunately all I get to hear are buzzwords like «vitalization», «deregulation» and «liberalization», but I see very little action. On the contrary, Switzerland is still drifting off-course. (...) New laws and decrees are passed regardless of whether they are enforceable or even feasible. (...) This trend stems from a ruinous hedging mentality. Positions are secured by erecting artificial barriers and imposing stubborn rules instead of defending them by dynamic action. This applies as much to individual companies as to the state as a whole. Just as market forces are unlikely to guarantee a particular firm a share in the market, the world cannot be expected to reserve a slice of international trade for Switzerland. We

have to relearn (...) how to assert and reinforce our position through work, audacity and innovation.»

These may be the words of a severe judge, but at the same time they are imbued with confidence for Switzerland's future – the very confidence that was also echoed in the words of Stephan Schmidheiny or Fritz Leutwiler when they emphasized in their foreword to the 1991 policy paper that their work «was driven by a clear affirmation of what Switzerland stands for, by the faith they had in the will of the Swiss to reform their economic system, and by their firm belief in the value of making this country a

haven of liberalism once more». The self-same confidence that Thomas Schmidheiny implied when he spoke of the immense challenges facing Switzerland today. «I am convinced», he said in an address delivered in 1993, «that there are enough outstanding personalities in our midst with the courage to rise to these challenges.» And elsewhere he added: «Let's seize these tangible global business challenges as an opportunity to shake ourselves out of our apathy. We are responsible for revitalizing our country and leaving it fit for future generations.»

## Thomas Schmidheiny: Chronology

- 1945** 17 December: born in Balgach
- 1969** Joint degree in business management and control and process engineering from the *Swiss Federal Institute of Technology (ETH)* in Zurich
- 1970–71** Technical director at *Cementos Apasco Mexico*
- 1972** Course for junior executives at the *IMEDE* in Lausanne, *master's degree in business administration (MBA)* – member of the municipal council of Balgach (until 1980)
- 1975** Managing director of *HOFI Glarus*, head of Secretariat to the executive committee, the management and the board of directors of *HOFI* – «*Holderbank*» commissions Rekingen plant
- 1976** Appointed member of the executive committee with the rank of Senior Vice-President in charge of Swiss and Middle East operations within *HOFI* – «*Holderbank*» becomes the number one cement producer in North America following the purchase of a majority holding in U.S.-based *Ideal Basic Industries Inc.* – acquisition of cement plants in southern Spain
- 1978** Chairman of the executive committee and managing director of *HOFI*
- 1980** Deputy chairman of the board and managing director of *HOFI* – member of the cantonal parliament of St. Gallen (until 1983)
- 1983** Member of the advisory board of *United Technologies Corporation, Hartford, Conn., U.S.A.*
- 1984** Chairman and managing director of *HOFI* – chairman of the *Wild-Leitz group*
- 1989** Takeover of *Gipsunion* and *Eternit* (with facilities in Niederurnen and Payerne) from Stephan Schmidheiny; transfer of *Wild-Leitz* to *Unotec*
- 1990** Takeover of *Northwestern States Portland Cement Company* in Mason City (Iowa) – merger of *ex-Dundee Company* with *Ideal Basic Industries Inc.* – acquisition of interests in various plants in Hungary
- 1992** Swiss operations restructured: creation of «*Holderbank*» *Cement und Beton AG* («*HCB*»), takeover of construction group *PCW (Portland Cement Werk Würenlingen-Siggenthal AG)* – «*Holderbank*» controls two thirds of the Swiss cement market
- 1993** *E.G. Portland* and the cartel commission agree to dissolve the cement cartel as of the end of 1994 – majority holding in *Cimenterie de l'Oriental (CIOR)* in Morocco – construction of a cement plant in Vietnam

## Stephan Schmidheiny: Chronology

- 1947** 29 October: born in Heerbrugg
- 1969** Spell as shift foreman at *Eternit Brazil*
- 1972** Obtained doctorate in law at the University of Zurich
- 1973** First job, with *Everite* in South Africa
- 1974** Return to Switzerland – head of sales at *Eternit AG Niederurnen*
- 1975** Managing director at *Eternit AG Niederurnen*
- 1976** Assumption of overall management responsibility for the *Eternit group*; beginning of a trend away from asbestos; trials with new technologies
- 1978** Election to the board of directors of *Union Bank of Switzerland*
- 1979** Start of diversification outside the construction sector
- 1981** Election to the board of directors of *BBC* (election to the board committee in 1985)
- 1984** Father Max Schmidheiny's operations divided up – membership of *European Round Table, ERT* (until 1994)
- 1985** Establishment of *SMH* with Nicolas G. Hayek; on board committee until 1988; end of 1993: gradual withdrawal from *SMH*
- 1986** Election to the board of directors of *Landis & Gyr* (major stake at end-1987) – establishment of *Fundes*
- 1989** *Wild-Leitz* transferred to *Unotec – Gipsunion* and *Eternit* (with facilities in Niederurnen and Payerne) made over to Thomas Schmidheiny – Stephan Schmidheiny divides his group up into *Anova, Unotec* and *Nueva*
- 1990** Non-executive chairman of *Leica plc* (founded at the start of the year) – Maurice Strong, General Secretary of *UNCED*, appoints Stephan Schmidheiny *Principal Advisor for Business and Industry*
- 1991** Establishment of the *Business Council for Sustainable Development (BCSD)*; Stephan Schmidheiny is appointed the first BCSD Chairman (office expired end of 1993)
- 1992** Publication of the book *Changing Course – A Global Business Perspective on Development and the Environment* – early May: reception held by U.S. President George Bush – June: *Earth Summit* at Rio de Janeiro
- 1993** Robert A. Jeker, former president of the executive board of *Credit Suisse*, is appointed managing director of *Unotec, Anova* and *Nueva*
- 1994** *Unotec* acquires stake in newly founded *Industrie Holding (Bank am Bellevue, BB)*

## Jacob Schmidheiny III: Chronology

- 1943** 23 September: born in Zurich
- 1971** Degree in economics from the University of Zurich – joined *Zürcher Ziegeleien (ZZ)*
- 1974–75**  
Assignment with *Compagnie de Construction Sulzer* in Paris
- 1975** Back at *Zürcher Ziegeleien*
- 1977** Member of the executive committee of *ZZ*
- 1978** Managing director of *ZZ*
- 1980** Start of diversification drive: Takeover of *Nauer group* (polyurethane foam for furniture and upholstery industries and consumables)
- 1982** Acquisition of *Arova-Mammut AG* in Lenzburg, now in Seon (rope goods, belts, sports articles)
- 1983** Vice chairman of *Wild-Leitz Heerbrugg* (until 1990)
- 1984** Chairman of the board of *ZZ*
- 1986** Start of construction work on *Tiergarten* development in Zurich – completed in 1993
- 1987** Acquisition of *Schmid Rhyner AG* in Adliswil (dyes, varnishes)
- 1988** Takeover of *Siegfried Keller AG* in Wallisellen (dyes, varnishes, noise protection materials) – acquisition of *Fürst AG* in Wädenswil (rucksacks)
- 1992** Takeover of *Reisgies Schaumstoffe GmbH* in Leverkusen (polyurethane foams) – *ZZ* converted into *Zürcher Ziegeleien Holding* in Zurich
- 1993** Takeover of *Toko AG* in Altstätten (ski wax and ski care products)

From generation  
to generation

**Hans-Jacob Schmidheiny**  
16. 9. 1810–6. 4. 1874  
m. Kathrine Nüesch  
1811–1867

**Jacob I**  
25. 6. 1838–18. 2. 1905  
m. Elise Kaufmann  
1843–1927

**Ernst I**  
1. 4. 1871–15. 3. 1935  
m. Vera Kuster  
1877–1964

**Jacob II**  
21. 6. 1875–8. 1. 1955  
m. Fanny Alder, 1881–1967  
(sister of Olga Alder,  
m. Albert Schmidheini  
4. 11. 1883–8. 2. 1969)

**Vera-Lydia**  
(«Verina»)  
1897–1981  
m. Hans  
Hoffmann  
2 sons, 2 daughters

**Marie-Luise**  
(«Lilly»)  
1900–1981  
m. Anton  
Schrafl

**Ernst II**  
16. 7. 1902–2. 3. 1985  
m. Anna Margarethe  
Gygi  
(1<sup>st</sup> wife)  
2 daughters

m. Lucie  
Meyer  
(2<sup>nd</sup> wife)

**Max**  
3. 4. 1908–19. 8. 1991  
m. Adda Scherrer  
(her 1<sup>st</sup> husband:  
Max Kreis, 2 sons)

**Nelly Helen**

**Peter**  
born 12. 7. 1908  
m. Ruth Schiesser  
1912–1992

**Marianne**

**Ursula**

**Claudia**  
**Annette**  
m.  
Gustav E.  
Grisard  
**Anton E.  
Schrafl**

**Adda-Marietta**  
born 26. 11. 1944  
2 sons, 2 daughters

**Thomas**  
born 17. 12. 1945  
m. Suzanne  
Mireille Lise Weber  
1 son, 3 daughters

**Stephan**  
born 29. 10. 1947  
m. Ruth  
Elisabeth Kipper  
1 son, 1 daughter

**Alexander**  
25. 3. 1951–  
2. 2. 1992

**Eva**

**Ariane Vera**

**Ursula**

**Jacob III**  
born 23. 9. 1943  
m. Margrit Pfister  
1 son, 1 daughter

**Marina**

# References and sources

The following list contains the literature consulted by all of the Schmidheiny biographers. Works relating to various members of the Schmidheiny families are listed once only under the chapter where they are first cited.

## **Jacob Schmidheiny I**

- Boesch Jakob: Jacob Schmidheiny, 1838–1905, series of talks for Radio Zurich, 1954  
Brüschweiler-Wilhelm J.: Vom Bauernjungen zum Grossindustriellen, Basel, 1908  
Gmür A.: Heerbrugg, manuscript, 1916  
Schmidheiny Jacob: letters to his sons

## **Ernst Schmidheiny I**

- Elser J.: 25 Jahre St. Gallisch-Appenzellische Kraftwerke 1914–1939  
Fiechter J. R.: Cent ans de vie Suisse au Caire, Alexandria, 1945  
Jost Hans Ulrich: Bedrohung und Enge 1914–1945, in: Geschichte der Schweiz und der Schweizer, Frankfurt a.M., 1980  
Kappeler Ernst L.: 50 Jahre Cementfabrik «Holderbank»-Wildegg AG, 1912–1962, manuscript of a company chronicle, 1962  
Loetscher G.: 100 Jahre Cementwerke Vigier AG 1871–1971  
Mangold Fritz: Denkschrift zum 50jährigen Bestehen des Vereins Schweiz. Zement-, Kalk- und Gipsfabrikanten 1881–1931  
Ochsenbein Heinz: Die verlorene Wirtschaftsfreiheit 1914–1918, Berne, 1971  
Schmidheiny Max und Schlumpf A.: Notizen zu Ernst Schmidheiny (manuscript)  
Schmidheiny Thomas: So entstand die Gruppe «Holderbank», De Holderbänkler 1987 – chairman's address, 26 June 1987  
Wyssling Walter: Die Entwicklung der schweizerischen Elektrizitätswerke... in den ersten 50 Jahren, Zurich, 1946  
Zürcher Wochenchronik, 1916  
Zürcher Ziegeleien: Minutes of the general meetings since 1912  
75 Jahre Jura Cement-Fabriken 1882–1957  
20 Jahre Viscose Fabrik Heerbrugg-Widnau, 1945  
Company publications:  
E.G. Portland Zurich, Cementfabrik «Holderbank», Cement- und Kalkfabrik Unterterzen, Eternit AG, Niederurnen, HIAG St. Margrethen, Wild-Heerbrugg AG  
Various authors: Commemorative essays in honour of Ernst Schmidheiny, 1871–1935

## **Jacob Schmidheiny II**

- Beutler Rudolf: Die optisch-mechanische Industrie im sanktgallischen Rheintal, St. Gallen, 1945
- Fehr B. et al.: Zum 70. Geburtstag von Jacob Schmidheiny, 21 June 1945
- Guyer Paul et al.: Zürcher Ziegeleien 1912–1962, publication commemorating the company's 50th anniversary, Zurich 1962
- Hefti Franz: 40 Jahre Fortschritt in der schweizerischen Ziegelindustrie, in clay industry journal Schweizerische Tonwarenindustrie, No. 6, 6 June 1945
- Inglin Oswald: Der stille Krieg, Zurich, 1991
- Klöti Emil: Erinnerungen an die Hilfsaktion für Escher Wyss im Jahre 1936, in Volksrecht, 21. Oktober 1960
- Rohner J.J.: Denkschrift über die Gründung und den 25jährigen Betrieb der Rheintalischen Strassenbahnen AG, Berneck & Heerbrugg, 1922
- Schmidheiny Jacob: Notes, letters and curriculum vitae  
– 50 Jahre Rheintalische Strassenbahnen, chairman's address, 20 December 1947
- Schmidheiny Peter: Address at the general meeting of Rheintalische Strassenbahnen (Rhine Valley tramway company), 1 September 1972
- Seelig Carl: Colonel Jacob Schmidheiny, as portrayed by his staff, 10 interviews, private print, 21 June 1945
- Storrer W.: Strassenkorrekturen und Betriebsumstellungen auf Trolleybus im sanktgallischen Rheintal, offprint from Strasse und Verkehr, No. 13, 1944  
– 75 Jahre Rheintalische Verkehrsbetriebe 1897–1972, Ein Querschnitt in Stichworten, Berneck, 1972
- Urner Klaus: Die Schweiz muss erst noch geschluckt werden, Zurich, 1990
- 150 Jahre Escher Wyss 1805–1955, published in celebration of the company's 150th anniversary in lieu of Volume 27/28 of the Escher Wyss newsletter
- Industrie und Steine: Die schweizerische Industrie und ihre Arbeiter, Olten, 1944
- Unser Rheintal, edited by Josef Schöbi, Au (Rhine Valley): 50 Jahre Wild Heerbrugg, Von der Kleinwerkstätte zum Weltunternehmen
- 75 Jahre Zürcher Ziegeleien, published by Zürcher Ziegeleien, 1987

## **Ernst Schmidheiny II**

- Berchtold Walter: Durch Turbulenzen zum Erfolg, Zurich, 1981
- Catrina Werner: Der Eternit-Report, Zurich, 1985
- Durand Dr.: Nachruf auf Ernst Schmidheiny (obituary), Céligny 1985
- Moser Sepp: Die Swissair-Story, Düsseldorf, 1991
- Nobs Pierre Alain: Die Swissair-Flotte 1931–1991, Berne, 1990
- Stucki Lorenz: Swissair, das Porträt einer erstaunlichen Fluggesellschaft, Frauenfeld-Stuttgart, 1981
- Everite News, Johannesburg, 1991
- Minutes of meetings of the Swissair board of directors, 1948–1965
- Unternehmer und Mensch, Ernst Schmidheiny zum 70. Geburtstag, with articles from J. R. von Salis et al.
- Commemorative plaque for Max Graf, 13 April 1987
- 75 Jahre Zementfabrik «Holderbank», Rekingen, 1987

## **Max Schmidheiny**

Boveri Walter: Ein Weg im Wandel der Zeit, Munich, 1969

Catrina Werner: BBC – Glanz-Krise-Fusion, Zurich, 1991

Churchill Winston: Memoiren, Berne, 1950

Frank Heinz: Köpfe der Wirtschaft, Wer ist wer in der Schweiz?, Lugano-Massagno, 1976

Hart Liddell: Geschichte des Zweiten Weltkriegs, Düsseldorf and Vienna, 1985

Höpflinger François: Das unheimliche Imperium, Zurich, 1980

Hottinger Arnold: 10mal Nahost, Munich, 1970

Lüthy Hans A.: Von Hodler-Sammlern, in: Ferdinand Hodler, Sammlung Max Schmidheiny, Zurich 1989

Salis Jean-Rodolphe von: Weltgeschichte der neuesten Zeit, Zurich, 1980

Schmidheiny Max: Die schweizerische Erdölforschung – eine Aufgabe unserer Wirtschaft, address delivered at the delegates' meeting of the Schweiz. Handels- und Industrieverein (Swiss Association of Trade and Industry), Zurich, 19 September 1959

– Die schweizerische Erdölforschung – ein Beitrag zur Überwindung der Energiekrise, address delivered at the general meeting of the Autogewerbeverband der Schweiz (Swiss Association of Car Dealers), 16 May 1974

– Einblick in die schweizerische Aussenpolitik, Festschrift commemorating the 65th birthday of permanent secretary of state Raymond Probst, 1984

– Was erwartet der Unternehmer von der Volkswirtschaftslehre? Festschrift for Prof. Francesco Kneschaurek, Berne, 1988

– Chairman's address at the annual general meeting of «Holderbank» Financière Glarus Ltd., 11 June 1975

– Manuscripts for diverse speeches

Simmen Rudolf: Von Wild zu Leica, 70 Jahre Firmengeschichte 1921–1991

Festschrift 75 Jahre Eternit, Eternit inhouse newspaper, 1972

100 Jahre HIAG, 1976

Sanktgallisch-Appenzellische Kraftwerke AG, 25 Jahre SAK 1914–1939

Die Kraftwerke Sarganserland im St. Galler Oberland, Festschrift, Pfäfers 1978

Portraits of various businessmen, manuscript for a book, 1978

## **Peter Schmidheiny**

Ender B., Rheintalische Verkehrsbetriebe: Verabschiedung von P. Schmidheiny (manuscript)

Fehr B.: Peter Schmidheiny und der Brückenschlag in der Schweizerischen Wirtschaft (manuscript)

– Letters and curriculum vitae, May 1968 (manuscript)

Schmidheiny Jacob: Letters to his son Peter

Schmidheiny Peter: Lectures and articles (manuscripts, offprints), including a lecture delivered to the Vereinigung Schweizerischer Betriebsingenieure (Association of Swiss Plant Engineers) on 19 January 1991 on the possibilities and limitations of coordination between industrial enterprises

Annual reports and other information releases from Escher Wyss AG Zurich und Sulzer Brothers Winterthur (from 1936)

Letters from the Federal Department of Economic Affairs

Circulars from the War, Industry and Labour Office

Annual reports of Credit Suisse

### **The fourth generation**

- Büttiker Gero: «Public Affairs» und unternehmerische Zukunftssicherung, in: Neues Denken – neue Chancen, Unternehmer über moderne Unternehmen, Zurich, 1989
- Moser Peter: Schweizerische Wirtschaftspolitik im internationalen Wettbewerb – eine ordnungspolitische Analyse, with a foreword by Fritz Leutwiler and Stephan Schmidheiny
- Schmidheiny Jacob: Gedanken zur Zukunft der Schweiz, in: Halbzeit – Fünfzig 50jährige zur Schweiz, Zurich, 1993
- Schmidheiny Stephan in collaboration with the Business Council for Sustainable Development: «Changing Course – A Global Business Perspective on Development and the Environment», Cambridge/London, 1992
- Schmidheiny Thomas and Stephan: Speech manuscripts and notes
- Asbest am Arbeitsplatz, Standortbestimmung und Prognose, published by SUVA (Swiss National Accident Insurance Fund), Lucerne, 1988
- Asbestersatz in der Schweiz, published by the Federal Office for the Environment, Forest and Landscape, Berne, 1989
- «Holderbank»/HOFI: Annual reports, balance sheet press conferences, minutes of general meetings
- Cosa-Liebermann news, Landis & Gyr annual reports, Leica life, Distral reports, annual reports and news from Fundes

# Photo credits

Adda Schmidheiny, Heerbrugg; Secretariats Ernst and Max Schmidheiny, Céli-gny and Heerbrugg; Thomas Schmidheiny, Jona; Stephan Schmidheiny, Hurden; Jacob Schmidheiny III, Zurich; Anova-Unotec, Zurich/Hurden; Escher Wyss, Zurich; Fritz Hauswirth, Meilen; HIAG, St. Margrethen; «Holderbank», Jona; Landis & Gyr, Zug; Leica, St. Gallen/Heerbrugg; Rheintalische Verkehrsbe-triebe, Altstätten; Anton E. Schrafl, Zurich; Swissair, Zurich; Toko, Altstätten; Verein für wirtschaftshistorische Studien (Association for Historical Research in Economics), Meilen; Zürcher Ziegeleien, Zurich.

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